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PUBLISHER'S NOTE.

With this number the publication of the *Bombay Educational Record* is resumed, and the paper will be issued in future by "The Publishing House," Bombay, every month.

It is the intention of the Publisher that this re-issue shall be in all essential respects a real continuation of the old journal, conducted in the same spirit, but with new departments, as detailed below.

This decision is the outcome of the resolve on the part of the Publisher that the Bombay Presidency ought not to be any longer without a journal recording its Educational progress and affording a medium for the expression and interchange of thought to the scholastic, academic, and literary forces present in Bombay—a community quite as assiduous and capable in their pursuit of knowledge as any in India.

The decision to issue such a Journal having received the cordial approval of the Director of Public Instruction, it only remained to secure the assistance of editors competent to guide the fortunes of the paper in a way calculated to appeal to the readers to be provided for. The Publisher has great pleasure in announcing that Mr. J. Macdonald, of the Bombay Scottish Education Society, and President of the new Bombay Teachers' Association, has undertaken to edit the scholastic side of the paper; and that Prof. J. G. Covernton, M.A., of Elphinstone College, will edit the academic side. The support of a strong organization of literary contributors has also been secured, and it will be welcome news to all the supporters of the old *Record* to know that the Hon. Mr. T. B. Kirkham will send contributions from London.

The *Bombay Educational Record* will have a two-fold nature in future, as indicated by the new sub-title *Literary Journal*, and it is upon the support of the literary contributors that the Publisher depends to make the paper not only useful but interesting—not only a useful record of Educational affairs and progress, but one that appeals to the thoughtful mind seeking the stimulus of contemporary thought.

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EDITORIAL.

J. Macdonald.

On 1st December 1894, a Special Editorial Notice appeared in the *Bombay Educational Record* to the effect that under orders from the Director of Public Instruction the Record ceased to exist from that day.

Naturally the readers of the Record looked for some explanation. Mr. Chatfield, the Director of Public Instruction, had for some years been desirous of bringing the Record to an end, and availed himself of a desire on the part of the then Editor to hand over charge to some younger man, to carry out his design. The Editor made the announcement with great regret, not only for sentimental and personal reasons, but because he feared the step would involve a serious educational loss. He rightly thought that as regarded sentiment it would be affectation to pretend that he viewed with indifference the deliberate extinction, in the height of its popularity and influence, of a journal which had run an unbroken course for thirty years, and which had been founded by Sir Alexander Grant, the author of so much that was sound and solid in the department. But his regret was based on more substantial grounds. He believed that no one who was acquainted with the inner life of the English and Anglo-Vernacular Schools of the Presidency could doubt that a great deal that was most hopeful in their condition was traceable to the monthly lectures and stimulus of the Record. He believed that in that respect the journal had amply justified the anticipations of its founder. That being the case he could but deeply regret the discontinuance of an agency tried by long experience and proved to promote the intelligent study of the science and art of teaching, and the cessation of an influence which had steadily made for moral and intellectual improvement in our schools.

J. G. Covernton.

The mere fact that in the other great Presidencies magazines dealing with educational matters have sprung up and borne good fruit is sufficient to indicate at least the probable utility of a similar venture in Bombay. But, for purposes of explanation rather than of justification, it will be more satisfactory to set forth briefly the objects which we have kept before us in reviving and enlarging the defunct *Educational Record*. To take the most obvious, first, the establishment of a literary organ, which, if not quite a 'possession unto eternity,' shall be at any rate a means of presenting to the attention of our contemporaries and possibly—for we would not indulge in vainglorious anticipations—of some few of those who will come after, the work and progress of Education in this Presidency. In such an organ there can be no ground for exclusiveness or partiality. It must take for its province all phases of Education, from the elementary school to the University, from the study of the most timeworn classics to the investigation of the latest miracles of Science. It is not meant—Heaven forbid—that the editors should descend *ex cathedra* to struggle with all or any of the countless ‘ologies’ included in this vast field, but they will be pleased to keep the ring for hardier and more specially trained combatants, while they themselves court inglorious security in occasional descants on method and general principles.

One aim, however, there is which in particular they hope to keep before them, both in their more individual expressions and in their joint conduct of the “Record” as a whole, and that is, the promotion of a new sense of solidarity, of corporate existence in the minds of teachers of all classes and of all creeds throughout the presidency, and not only among those who teach but also among those who learn. The word ‘new’ may perhaps ring somewhat presumptuous in the ears of a few, but we venture to assert that those who are working in behalf of education in Bombay really do need co-ordination in this respect. *Esprit de corps*, no doubt, there is, but it is too local, too sectarian, and tends to the production rather of competition than co-operation. Now competition is a good thing in its way—to some extent it is a sign of healthful vigour—but it may be carried to excess, in which case it obscures the true ideals to be aimed at, and substitutes a means for the end. In these pages the advocates of rival systems may air (or if they prefer it ‘ventilate’) their views, exchange their ideas and discuss their difficulties (or those of their opponents, according to choice) until they learn to know each other better, and upon closer acquaintance become, if not sympathetic comrades, at least appreciative adversaries. Thus the common cause, which all have at heart, will be furthered by all, and not in this portion of India only, but throughout the whole length and breadth of the continent. The ever-widening ripple of successful effort here will spread continually until, coming into contact with systems not our own, it will communicate to them something of its own force or receive in its turn new direction and fresh impetus.

But there is a secondary set of objects to which also we confess a firm devotion. The title promises not merely an “Educational Review” but a “Literary Journal” withal. The claim is a bold one, yet, while properly conscious of our temerity, we advance it almost with light hearts, since the burden of making it good lies not more upon ourselves than upon our contributors and readers. We trust that both will support us staunchly, the one in writing, the other in reading that which shall have something more than mere weight to recommend it. Facts are great, ideas are greater, greatest of all is the style which can express to best advantage the content of both idea and fact. We ask pardon for this obtrusion of obvious platitudes, but we had almost come to question whether at a time when *soi-disant* authorities combine with 'the man in the street' to burlesque a tongue they seldom or never speak, these things are the platitudes they seem. Wishing for assurance on this point and feeling that there are still many who have not bowed the knee to Baal and want but little encouragement to induce them to emerge from their voluntary obscurity, we indite this appeal to all who have interests apart from and above the *banalities* (if we may coin the word) of business and social life.

And, lastly, we would be frank. For all save for the specialist, or the faddist, the purely 'technical' or 'professional' magazine is a dreary waste. Now we should prefer this one to be an oasis, and we think that education, being a matter of universal importance, is not incapable of being rendered of at least mediocre interest. Negative means to this end would be to avoid allowing undue prominence to esoteric and professional details as well as to evade the use of technical slang or what may be called 'educational cant.' More positive results may be expected from the definite effort to give effect to literary aspirations and from an attempt to render the magazine not only *educational* but *educative.* Articles dealing in a popular way with interesting topics of literature and science, of art and history can do more for those who seek to broaden their minds than countless disquisitions on cut and dried theories of education. The fact is, educationalists are prone to think more of the anatomy and pathology of their subject than is good for them or it. Let them study its biology and comparative morphology, above all let them apply their learning to practical ends, but still to the outside world the skeleton will need wrapping in living flesh and blood and even the addition of a few not unattractive garments and trinkets.

THE DEPARTURE OF Mr. KIRKHAM.

In this number of the Bombay Educational Record it is eminently fitting that the departure from India of the Honorable Mr. T. B. Kirkham, Barrister-at-Law, Educational Inspector of the Central Division of the Bombay Presidency, should from us receive special notice. He has done yeoman service in the cause of education in the Western Presidency for nearly one-third of a century, not the least of his services being as Editor of this Journal, which he conducted with great zeal, great prudence, and conspicuous ability.

Overlooking a Resolution in which Government forbade its educational servants to publicly accept any testimonial or address, the Bombay Teachers' Association and other friends and admirers drew up an address expressive of their admiration of the excellent educational work done by Mr. Kirkham and of their very great regret at his departure from India.

There was an ardent hope among them that out of his rich and varied educational experience, Mr. Kirkham might be induced to address to the teachers in Bombay some few wise words which might be helpful to them in their profession, but, as a Government servant, he felt himself constrained to refuse all invitations of a kind which might seem to trench upon his duty.

The Teachers' address, however, was handed to him by the President and a deputation of the signatories just as the vessel which was to bear him from India was on the move to leave the harbour.

The address was enclosed in a case of elaborate Bombay work.

No reply could, of course, be given beyond a promise that if he were to reach the shores of India as a cold weather visitor, as he hoped to do, his friends might expect to have his thanks delivered personally.

The following is the address:—

To THE HON'BLE MR. T. B. KIRKHAM,
Barrister-at-Law,
EDUCATIONAL INSPECTOR,
CENTRAL DIVISION,
BOMBAY PRESIDENCY.

DEAR MR. KIRKHAM,

We have learned with deep regret about your approaching retirement from educational service under the Government of India and about your forthcoming departure from this country. As of those actively interested in the progress of education on this side of India, we desire to give expression to the feelings with which we have long regarded your work in our midst, and we beg leave to say that no educationist in our Presidency enjoys more general esteem than you do in all educational circles in this City and throughout the Presidency.

We shall not attempt, in a short address, to summarise the events of a career that has now extended over thirty-five years in this country—a career of incessant activity, in which you have been able to further the best interests of education in many different ways and in many different directions. Whether as Principal of the Presidency Government High School, or as Professor in the Presidency College, or as Inspector of Schools, whether in the Municipal Corporation or in the Legislative Council of the Presidency, you have always sought to promote the moral and intellectual welfare of the people of the country, by advocating their claims to a liberal and comprehensive education on the same lines as are followed in Great Britain. You have taken an influential part in the development of Secondary Education; your hand has been felt in the Grants-in-Aid Code, which so satisfactorily regulates State help to private educational effort; you have recognised the peculiar value of physical science for the natives of India and have urged upon Government the need of providing means and appliances for its study. The claims of technical education have had your warm sympathy, and your efforts in that behalf have already borne fruit in the encouragement given by Government, within recent years, to that branch of instruction.

While you have done all in your power for the spread of Higher Education, you have always recognised that Primary Education on the largest possible scale is at the root of national prosperity, and every effort, whether public or private, to extend its benefits has uniformly met with real and practical sympathy at your hands.

You will be long missed in this Presidency, not only in Government schools, but as much, or even more, in "Aided Schools," where your sympathetic administration will be long remembered with true gratitude. Your relations with the Managers and Teachers of Private Schools have been characterised by deep insight into the varying needs and conditions of different schools, and a genuine appreciation of the good work done by each. You have thus helped each class of school to produce its best in its own way; and your visits as Inspector have constantly brought with them a new inspiration to schools by your cordial recognition of the good they have done and your suggestions of still higher ideals and better methods of discipline and instruction.

We have spoken of your work; but we cannot help feeling that more than your work has been your life, diffusing wherever you have gone the elevating influences of a noble, refined, and thoroughly religious character. You have deservedly enjoyed the confidence of Government throughout your long and distinguished career; and the people of this country have recognised in you a true friend who was in fullest sympathy with every legitimate native aspiration.

You will be leaving behind you many friends, both European and Native, all of whom will part with you, as we do, with heavy hearts. We take comfort, however, in the thought that you will be spending a well-earned rest in a healthier climate; and we pray that, with the other members of your family, you and Mrs. Kirkham, your faithful helper in all your good works, may yet have many years of a very happy and useful life in your native country.

We remain,
Your most sincere Friends and Admirers,
(*Here follow the Signatories' Names.*)

OBITUARY.

On the 21st May, that immortal statesman, William Ewart Gladstone, passed away from this mortal scene. A painful malady, borne with Christian courage and resignation, terminated a sublimely noble life.

He was of Scottish descent on both sides. His father at an early age left Leith, his birth-place, to become a Clerk in a large mercantile house in Liverpool, where he soon became a partner, and was afterwards made a baronet, taking his title from his Scottish property of Fasque in Kincardineshire.

He married Ann Robertson, the daughter of a Stornoway man, who became provost of Dingwall. William was the fourth son of the marriage, and was born in Liverpool on the 9th day of December 1809.

His father had been originally a Whig and a Presbyterian, but with the growth of his worldly interests, he became a Tory, and joined the Church of England, which accounts for the fact that it was as a Tory that William Gladstone began his political career.

It was not till after 1850, that, having already renounced most of his earlier opinions, he gradually separated from his Tory associates. He refused to join the Derby ministry in 1852; and, on its fall shortly afterwards, when a Coalition Ministry of the Whigs and the Peelites was formed, with Lord Aberdeen as Prime Minister, Mr. Gladstone became Chancellor of the Exchequer.

Sent to Eton at twelve years of age, he had as friends Arthur Hallam, and men like George Cornwall Lewis, James Bruce (afterwards Lord Elgin), the father of the present Viceroy of India, Bishop Selwyn, and Canning, afterwards Governor-General of India. While at Eton he was noted as a boy pre-eminently conscientious, God-fearing, and humane.

In 1828 he entered upon some memorable years at Christ Church College, Oxford. Then he associated himself with the extreme Tory and High Church party. He quitted the University with a double first in 1832; and although he had serious thoughts of joining the Church, his father's wish and the excitement of the Reform Bill discussions decided him for politics. In 1833, therefore, at the age of twenty-two years, robust, well-read, wealthy, and intensely earnest, he became member of Parliament for Newark, and speedily made his mark as a debater and as a man of strong character.

In 1838, finding his eye-sight impaired by his studious habits, he was compelled to winter abroad, and at Rome met the widow and daughters of Sir Richard Wynne of Hawarden Castle, with the result that he married Catherine, the eldest daughter, in July of the following year.

In the Ministry formed by Peel in 1841, William Gladstone was at first appointed to the office of Vice-President of the Board of Trade and Master of the Mint, but in 1843, when Lord Ripon was moved to the Board of Control, Gladstone was promoted to the post of President of the Board of Trade, with a seat in the Cabinet. Two years later, however, when the Government voted an increase of the grant to Maynooth College, he felt, that for the sake of consistency, he must resign office. He was not a Member of the House which repealed the Corn Laws, as he had been unseated at Newark. He was returned for Oxford in 1847, to be unseated by Mr. Gathorne Hardy in 1865, when the Palmerston Government went to the country on the question of reform.

In 1860, Mr. Gladstone was installed as Lord Rector of Edinburgh University. In his address he urged the students to view their course as a preparation for the serious business of life, and pointed out how each age was helped by the labours of the preceding epochs, so that all the generations together combined in cumulative service in which each did his best, but in which the mass multiplied the momentum of every individual.

On the death of Lord Palmerston, Lord John Russell became Prime Minister, and Gladstone became leader of the House of Commons. In the same year, Mr. Gladstone, for the first time, became Prime Minister, but in 1873, when he attempted to tackle the Irish University problem, he was defeated, and had to make way for Disraeli as premier.

It was in 1876, that Mr. Gladstone again returned to Public Life to denounce the Government in respect of their Eastern Policy, more especially in connection with the Bulgarian atrocities.

In the Autumn of 1879, he went to Scotland to contest the county of Midlothian against the Earl of Dalkeith. Nowhere was his influence greater, or his authority more unquestioned than for some fifteen years in Scotland. His Scottish blood, his passion for Scott, his love of Edinburgh, his *perfervidum ingenium*, all endeared him to the Scottish people. Nowhere will he be more sincerely mourned. Throughout his first electioneering campaign in Midlothian his movements were a kind of triumphal progress, his reception everywhere intensely enthusiastic. In this campaign an incident which afterwards caused him inconvenience was his denunciation of Austria as the enemy of freedom. His second Ministry begun in 1880, was one of the most exciting in the history of the Century. Army purchase was abolished from November of that year, by Her Majesty cancelling the Royal Warrant. The Irish land bills failed to pass the Commons, the Egyptian War, arising out of the rebellion of Arabi Pacha, with the subsequent loss to Egypt of the Soudan, the fall of Khartoum, and the death of General Gordon in 1885; the difficulties in the Transvaal, culminating in the disaster at Majuba Hill, and the difficulty with Russia on the Afghan frontier, were among the critical incidents of Mr. Gladstone's second ministry.

The Representation of the People Bill was passed in 1885, but its foreign policy had alienated the Liberal party from the Government. Their ostensible defeat was on the Budget Resolutions. Mr. Gladstone resigned, refusing at the same time Her Majesty's offer of an Earldom.

On his return to power his first Home Rule Bill was defeated by a majority of thirty, and out of the split which followed came the Liberal Unionist party. Parliament was again dissolved. The Conservatives were returned to power with a substantive majority, and from 1886 to 1892 Mr. Gladstone led the opposition in the House of Commons with extraordinary vigour. His chance of trying his hand once more at the Irish difficulty came again in 1892. Although he succeeded in passing the Bill through the Commons by a majority of thirty-four, it was thrown out by the House of Lords. The defeat of the Second Home Rule Bill practically ended Mr. Gladstone's public career. In March 1894 he quietly quitted the House of which he had been an ornament for sixty years.

In his retirement his personal popularity greatly increased, and his extraordinary qualities of mind and body, used for the promotion of the greatness and prosperity of the British Nation, have gained him the admiration and deep affection of persons of all shades of opinion.

As an orator he possessed unparallelled rhetorical powers, for both mental and physical gifts combined to make him equal to any emergency, no matter how sudden. One feature which greatly distinguished him in debate was his remarkable candour. He never affected to misunderstand his opponents' arguments, and spared no pains in trying to make his own meaning clearly understood. His knowledge was encyclopædic, his convictions earnest; and he was thorough in his grasp of each one of the multifarious subjects he took in hand.

He lies in the Statesmen's Corner of Westminster Abbey, honoured and revered of all.

Dr. Buhler, C.I.E.

The death of the Hoffrath, Dr. G. Bühler, C.I.E., by a boating accident on Lake Constance, is deeply regretted by Oriental Scholars, both in India and in Europe. Dr. Bühler came out to this country in 1863 as Professor of Sanskrit in the Elphinstone College, Bombay. He held the chair for about 6 years and was then appointed Educational Inspector of the Northern Division, a post which he held until the end of 1880 when he retired from service. Soon after his return to Europe he accepted the appointment of Sanskrit Professor in the University of Vienna, a post which he held until his untimely death.

While in India Dr. Bühler did important service to the cause of Sanskrit scholarship by founding, with the assistance of Sir A. Grant, the Director of Public Instruction, the "Bombay Sanskrit Series," in connection with which accurate and annotated editions of a number of original Sanskrit works have been published. He himself edited a portion of the *Pañchatantra*, the *Daśakumâracharita* and Âpastamba's *Dharmasutra* with extracts from a commentary for the series. A still more important service rendered by him was the institution of a search for Sanskrit Manuscripts which he himself conducted with conspicuous success for a number of years. He discovered many valuable works in Rajputana, Marwar and Kashmir, which have thrown a flood of light on the political and literary history of India. Latterly he turned his attention to the deciphering and translation of ancient inscriptions in which he obtained such proficiency that he became one of the few experts in that branch of Indian Archæology. In conjunction with Sir Raymond West he published a valuable book on Hindu Law. In the early years of our University, the Sanskrit studies in connection with it were under his direction and guidance. After his return to Europe he applied himself to his favourite studies with undivided attention, and published a good many monographs on famous authors and works in the Jaina and Brahmanic Literature and on other literary subjects. To the "Sacred Books of the East," he contributed three volumes of translations of works on Hindu Law with learned and valuable introductions calculated to elucidate the history of that branch of Sanskrit Literature. He planned and edited the *Encyclopædia of Indian Research*, which is being published by Mr. Karl Trübner of Strassburg. Several valuable volumes have already been issued, and one of these was written by Dr. Bühler himself.

Though Dr. Bühler was in Europe for the last seventeen years of his life, he never lost touch of India and Indians. He took interest in every important event occurring in this country, and kept an active correspondence with Sanskritists and Archæologists here. Impressions of fresh inscriptions found in various parts of the country were sent to him, and he published papers on them in the *Epigraphia Indica* and other periodicals. His close acquaintance with native scholarship enabled him to form a just estimate of the value of the Indian traditional lore, and he defended it with great ability against ill-judged attacks made on its authenticity by European and American scholars. In his judgment of the work of other scholars, Dr. Bühler was always impartial, and gave to each man the credit due to him; and one of his great aims, both here and in Europe, was to attract fresh recruits to his profession by helping and encouraging younger men.

He was himself a man of great physical and intellectual activity, and his administration of the large and important Northern Division, which then included the whole of Kathiawar, is remembered to this day not only as a period of stern but just discipline, but also as a period of great intellectual activity. An Educational Inspector who was also a great Oriental Pundit appealed directly to the school-masters and the Shastri, while Dr. Bühler's devotion to work could not fail to rouse the energies of those who served under him. There are many who hoped that he would once more revisit the scene of his former labours, but though this may not be, his memory will be preserved in the work which he performed with so much energy and ability, and which will not die.

Dr. Atmaram Pandurang was one of those distinguished social and political reformers whose loss will be severely felt throughout this Presidency, if not throughout India, for a long time to come. His name has been known for thirty years as that of one who fearlessly and straightforwardly carried out his principles, often almost single-handed. He was a popular medical practitioner with extensive practice, but somehow always found time for the Prarthana Samaj Meetings. An earnest man, he neither trifled with a subject, nor allowed himself to be trifled with. Though fearless and outspoken, he was kindly in manner, and warm in all his friendships. He continued to maintain his simple Hindu habits to the end. For thirty-three years he was an active Member of the Bombay Branch of the Royal Asiatic and several other learned societies.

DEFOE'S ROBINSON CRUSOE.

In one of Defoe's rhymed appeals for commiseration, he speaks of his varying fortune: thirteen times, he says, "have I been rich and poor." This varying fortune, so conspicuous in his earlier years, seems to have accompanied him through life. At the age of sixty, when he had entered upon a period of great prosperity which was largely due to the rapid sale of his books, he built himself a handsome house at Stoke Newington; ten years afterwards he died in some sort of distress at a lodging in Moorfields. And as it was with Defoe's fortune, so has it been with his reputation. By his contemporaries he was often suspected and accused of underhand practices; yet some thirty years ago, it was the fashion to represent him as a model patriot, as a noble sufferer in the cause of freedom, and as a man much-reviled only because he alienated everyone by his inexorable honesty. For more than a century after his death, the autobiographical statements which he was so fond of publishing were accepted as trustworthy; but in 1864 a search was made among some State Papers, and there, written in his own hand, lay six letters containing the clearest evidence against him, there at last was his own avowal that he had made it his business as a hired agent to defeat the aims of the party he professed to serve. In 1704, as we understand the matter now, he purchased his liberty by promising to act in the secret service of the Government. When he left his prison, he had already started *The Review*, he was a ready and an able writer, and he had a comprehensive and accurate knowledge of public affairs; he was by no means averse to trying a new trade, and he had sufficient confidence in his own power to take a keen delight in a dangerous occupation. He was in every respect fitted for the work he had undertaken, and he appears to have accomplished it successfully. He made himself useful to several successive ministries; he discovered the very best of reasons for changing his views whenever there was a need of adjusting them to those of his employers, and in the second decade of his service he played the spy and the traitor in the publishing-offices of the Tories, and gained control over the opposition press, so as to render it inoffensive to the party in power.

Since the publication of these tell-tale letters, there has been a change in the estimate of Defoe's character; and we may read of him now* as "a great, a truly great liar, perhaps the greatest liar that ever lived." The criticism thus expressed is equivalent to a declaration, that in the record of a life such as that of Defoe the good and the evil are inseparable; and indeed, his merits and demerits are best considered together, for they spring from the same source. It was his irrepressible and daring inventiveness that enabled and encouraged him to put forward his *Essay on Projects*, to cajole the editor Mist, and to certify the truth of the *Apparition of one Mrs. Veal.* He was a master of deception, just as Swift was a master of irony. Defoe knew how to handle Swift's favourite weapon, and in point of irony *The shortest way with the Dissenters* is not far behind the *Argument against abolishing Christianity* or the *Modest Proposal;* yet it was the assumed air of seriousness in Defoe's satire that brought him into trouble. He was placed in the pillory and shut up in Newgate, because he had deceived and angered both friends and enemies by pretending very cleverly to be overzealous in a cause which was not his own.

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* *English Men of Letters. Daniel Defoe.* By William Minto, p. 169.

We are justified in thinking gratefully of Defoe's inventiveness, for it was he who originated two very important kinds of popular prose literature. In *The Review* he introduced the periodical essay, which a few years later took a truly exquisite form under the hands of Steel and Addison; and by his *Robinson Crusoe*, he prepared and paved the way for the three great novelists who were soon to follow him. It is that book that has won for him a lasting position among men of letters; and it must always have singular merit, not merely because it popularized and gave a market-value to fiction, but because it is a tale of adventure devised and written by as hardy an adventurer as ever lived out his days in his own land.

Robinson Kreutznaer or Crusoe, who tells his own story, was born in 1632. His father, a well-to-do merchant, had come over from Bremen,* had settled in York, and had there married. Robinson was the name of his mother's family. It was the parents' wish that this their youngest son should take to the law and remain at home; but he was of a roving disposition, and had it constantly in mind to try his fortune abroad. On September 1st, 1651, while he was in Hull, he chanced to meet one of his seafaring friends, and an hour or so later they had both taken passage on board a ship which was just setting sail for London. On the fifth day of the voyage, the weather was so threatening that the captain put into Yarmouth Roads to ride out the storm: but the sea ran high, and before long all hands were called to the pump. In the end the ship had to be abandoned, and all who were on board of her were saved in a boat. Crusoe was ashamed to return home after this disaster, and eagerly accepted the offer of a berth on another ship bound for the coast of Guinea. This time everything went well; and he got so much knowledge of the sea, and made such capital bargains, that he resolved on his return to set up for an African trader. Full of hope, and provided with a good stock of merchandise he was soon on his way again: but on September 1st, when off the Canaries, the ship that carried him was surprised and captured by a Turkish rover. The young and handy Crusoe was kept as a special prize by the commander himself, and for the next two years led the life of a slave at a port belonging to the Moors. He was not ill-treated, yet he longed for liberty; and watching his opportunity, he was able at last to effect his escape. On the pretext of having to catch fish for his master's table, he stocked a sailing-boat with all that was needed for a voyage, and gradually moved out from the port; there on a sudden he pitched his companion overboard bidding him swim to land, and made for the open sea. After sailing above a thousand miles along the African coast, he fell in with a Portuguese merchant-ship: he and his boat were taken on board, and he was carried away to Brazil. As soon as he was put on shore he sold his boat, and took up a share in a plantation, where he grew sugar and tobacco. For four years he worked hard and prospered, until the small number of labourers was found to be so serious a drawback to the success of the planters, that he was prevailed upon to revisit the coast of Africa with the design of procuring a cargo of negroes. He appointed agents to look after his estate, and on September 1st, 1659, set out from Brazil. After crossing the line, the winds were so unfavourable that it was resolved to alter the course and to stand away for Barbadoes; and while in this distress, the gale still blowing, the ship which was already disabled struck upon a sand, and there was nothing for it but to take to the boat. The boat was overturned, and Crusoe's companions were all of them lost: but he was caught by a wave and thrown on to high ground. Finding himself alone upon a rocky island, it seemed to him that he had escaped drowning only to perish by starvation; yet he plucked up courage, went in search of fresh water, and passed the first night sleeping in a tree. Meanwhile, the storm had done him a service, for the ship had been lifted and driven in towards the island. He lost no time in swimming out to the wreck, to take for himself whatever he could get; and when he had tied together masts and yard so as to form a raft, he managed to land a very good store of provisions, liquors, clothes, carpenter's tools, arms and ammunition. Tacking together some pieces of sail-cloth, he erected a tent in front of a cave, fencing it round with a double row of strong stakes which, as time went on, shot out branches and grew to a thick grove. During the first years of his solitary life, he wandered over the hills with his gun, shooting goats and birds; and on finding large quantities of grapes, he gathered and dried them in the sun for winter use. Out of the wood saved from the wreck he made tables and chairs, and from the trees which he felled he made two canoes, shaping them with his hatchet and chisel as well as he was able. He also gave much time and labour to the growing of barley and rice, so as always to have by him a sufficient supply: and after many attempts and failures, he found out how to burn clay, and furnished himself with a number of rude earthen-ware jars in which to cook his food and store his grain. To spare powder and shot, he determined after long consideration to form an enclosure for tame goats; and by the time this was well finished, he had an abundance of milk, butter, cheese and flesh. Thus occupied, he had passed nearly sixteen years, speaking no word except to his parrot, when one day, while going towards his boat, he was alarmed by the sight of a foot-print on the sand; and two years after this, he discovered to his dismay that the island was constantly visited by parties of cannibals, for it was their custom, whenever one tribe had conquered another, to make for the nearest shore and celebrate the victory by feasting on the captives. During one of these celebrations, a well-grown young savage, who had been dragged out of a canoe to be killed and eaten, slipped his bonds and started off at full speed straight towards Crusoe's hiding place in the grove. Assisted by Crusoe, he escaped from his pursuers and was saved from death: he at once attached himself to his deliverer and received the name of Friday. On another occasion when the cannibals came, Crusoe and Friday made an attack upon them, and rescued a Spaniard and an old man who proved to be Friday's father. The Spaniard's first care was to solicit help for sixteen of his countrymen who had been thrown upon a neighbouring coast, and were living there in great want of food and in continual danger from the savages. In order to be well prepared for receiving so large a number, many months were spent in enlarging the corn-fields, in gathering in grapes, and in adding to the stock of tame goats. The Spaniard was then permitted to take the canoe in which he had been brought as a prisoner and to go in search of his friends and bring them off to the island. While Crusoe was awaiting their arrival, a boat was seen standing in for the shore; it contained eleven men, and belonged to an English ship. Eight of these men were mutineers, whose purpose it was to make away with their captain and seize the command. Crusoe defended the captain, quelled the mutiny, and recovered the ship. Three of the rebel sailors, whose lives had been spared, were ordered to stay on the island to receive the Spaniards, but as for Crusoe himself, after twenty-eight years of captivity, the time for release had come; and taking Friday as his companion, he sailed away. When he arrived home, he found that his parents were dead, that he had been given up for lost, and that no provision had been made for him. He went therefore to Lisbon to enquire after his estate in the Brazils. His agents, as it appeared, had looked after his interests, and were quite ready to recognize his claims as soon as his identity was established. As he was now the possessor of a considerable fortune, he made up his mind to return to England; but instead of going back as he came, he travelled through Spain, and joining a party of horsemen crossed the mountains into France after the winter had set in. During this journey, Friday distinguished himself by making sport with a huge bear, and Crusoe scared away some three hundred ravenous wolves by firing a train of powder just as they were rushing upon him.

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* This detail is worth noticing: for it is probably connected with the argument of the *True-born Englishman*, and with the assumption of the prefix by which the name Daniel Foe became Daniel De Foe.

This first part of the story was so eagerly read, that it was very soon followed by *Further Adventures*. Crusoe sells his plantation, becomes the owner of a farm in the county of Bedford, and lives quietly and industriously for seven years; but becoming unsettled by the death of his wife, he is easily persuaded to take again to the sea. He first pays a visit to the colonists of various races who are now upon his island, settles their quarrels, and makes excellent arrangements for their welfare; and then, after grieving over the loss of Friday who is killed by the arrows of the Caribbeans, and after exchanging valuable presents with his old friends in the Brazils, he makes across to the Atlantic, rounds the Cape to Madagascar, and so passes on to the Persian Gulf and the Coast of Coromandel. His loud disapproval of the massacre of some natives in Madagascar is so strongly resented by the whole crew, that he has to be put off the ship in the road at Bengal; however, he soon contrives to make new friends, and goes trading to Sumatra and Siam, where he gets so much money that he invests a part of it in some very good diamonds which are easy to carry. He also takes a share in a large Dutch coaster, which has so very bad a name at all the ports that he is attacked and pursued as a pirate; yet he gets away at last to the north of China, spends some time in Pekin, crosses through Siberia to Archangel, and at the breaking up of the ice proceeds to Hamburg. He returns home, at the age of seventy-two, to end his days in peace.

(*To be concluded.*)

WESTERN CIVILIZATION.*

Whence did our modern western civilization originate and what are the fundamental data which form its basis? These are large questions, and not lightly to be answered, but Professor Cunningham in his interesting and (as it would be called in Oxford slang) 'meaty' little book has proffered solutions, which, though inevitably and confessedly partial, are at the same time highly suggestive. In effect, he says, the birthplace of our present civilization was Egypt and the nursery of its vigorous childhood and youth the basin of the Mediterranean. Without suffering himself to be misled by the phantom of a so-called Aryan race, and, without wasting words on the preposterous claims which some rash persons have advanced on behalf of India as the mighty mother of all arts and sciences, he goes straight to two fundamental facts. These are simply (1) that Egypt was the site of the oldest civilization of the world; (2) that her civilization, like our own, was based on an organization of labour, involving, in more or less elementary forms, the development of trade and commerce.

Simple as these statements are, they lead to something further than has yet been made explicit. They foreshadow a theory of an unbroken continuity between the old and the new, between the life of ancient Egypt with all its caste fetters and priestly domination, and the unchecked expansion of our latest birth of time. The clue which leads down through the labyrinth of the ages is not religion. Religions have come and gone as lightly as crowns themselves; "a breath can make them as a breath has made." Still less is it art, or philosophy. How few men throughout the long vista of the generations of the world have had time, inclination or means to trouble themselves with the one or the other, with feigned semblances of things that are or are not, or with other men's ideas of what yet another has thought or should have thought. No, most men have to keep their breath to win their porridge, if not to cool it when won. It is labour alone, vulgar, sordid, trafficking labour, that binds the ages together. And it is in the continual adaptation of labour to the changing conditions of life and in that consequent development of skill and organization which rewards the victorious in the struggle that the tendency to advance lies. Where the circumstances change but little or not at all, adaptation is unnecessary and, when adaptation is not compulsory, stagnation and decadence are the results.

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* An Essay on Western Civilization in its economic aspects (Ancient Times) by W. Cunningham, D.D. (*Cambridge University Press.*)

It has been the blessing of the Western world that, thanks mainly to her geographical and climatic conditions, rest has been impossible, and continual changefulness bringing in its train continual labour has been her most permanent characteristic. Never has there been a lasting monopoly of civilization, and each nation in turn has been forced to hand on however unwillingly the lamp of progress to a due successor. Egypt paved the way for Phœnician, Jew and Greek; from Tyre sprang Carthage, the rival and prey of Rome. Pupil of Greece and forced by fate to masquerade in the manners of a race which he only half understood and more than half despised, the Roman in his turn became the master of Teutonic and Slav barbarians, the ancestors of the Europeans of to-day. And the 'school' in which all these nations have graduated has been, not the "Voluntary subject" of art, or divinity, or philosophy, but the obligatory one of labour, manual and commercial. Trade in some form or other is at the basis of every phase of European civilization. This is indeed a common-place or rather it ought to be but is not, since we are all too apt to be led away by catch-phrases applied to particular characteristics and to give them an unduly extended significance. Thus the Greeks are sweepingly classified as an æsthetic and artistic race, the Romans as a military and moral one, while the Carthaginians are stigmatised as commercial, and yet trade and economic requirements determined the rise and fall of all alike. In the same way, in modern times, while England is a nation of shopkeepers, France and Germany, Russia and Austria are nations of soldiers, though when challenged all would admit that this off-hand description is incorrect.

But if this continuity is a fact, then there will be some connection between the problems which all ages have had to face, and the full comprehension of the difficulties which beset any particular nation can only be attained after an examination of those with which the fore-runners who have influenced it most have struggled. Such an examination will generally afford lessons of the utmost value, though, naturally, owing to change of conditions, exact parallels will seldom be forthcoming. The economic circumstances which attend the youth of most nations, whether they have passed the very earliest stages and have in fact some claim to be called nations or states, or whether they still remain tribes or mere congeries of individuals, are to a certain extent the same. Even when mere fighting is still recognised as the most honourable form of labour, the more productive forms must co-operate with it or the nation will cease to exist. Thus there springs up the necessity of an adjustment, of a *modus vivendi* between my lords the warriors and the despised but indispensable manual labourer. Handiwork, whether in the fields or with the artisan's tools, in process of time demands the trader who shall serve as the medium for the exchange of produce. From the relations of these working and trading masses to the governing, fighting and land-owning classes will spring difficulties which each nation must settle in its own way, though in each case the general features of the problem will be more or less alike. Permanent solutions are not to be looked for, are in fact to be dreaded since the effort to arrive at an answer which shall apply to all possible conditions is futile, and the attempt to enforce on future generations some hard and fast arrangement by legislation or by custom means (if successful) the fossilization of the nation as has happened in China and, to a certain extent, in India.

The lessons Professor Cunningham indicates are instructive enough, but we can do hardly more than summarize one or two of them which appear to us to have a special bearing on modern times and on Indian affairs in particular. What, for instance, are we to deduce from the long abasement of ancient Egypt, which has only reached its turning point in the present day, and from the still longer period of her empire and prosperity? That Egypt is the 'gift of the river' Herodotus tells us, but he does not tell us the result, *i.e.*, that the Pharaonic power became a despotism built upon the control of the water system. Once irrigation had become general, and the bureaucracy which superintended its working had been installed, Pharaoh having the whole system in absolute subordination to himself became indeed the God whom his people thought him. He was the true Ra to give drought or plenty as he saw right and as the people paid him his demands. However free the fellahin had been originally, through their dependence on the water-supply they fell wholly into Pharaoh's hand. The same desire to control the whole course of the Nile (far more than the search for fabulous mines or mere vague desire of trade) led to the ancient Egyptian conquests of the Soudan. We too in India have our irrigation systems, and though there is no fear of their producing a Pharaonic despotism, it behoves us to see that they are not administered in the old Egyptian spirit, and that the zulum which was evidently rife in ancient Egypt shall have no footing in modern India. Again, now that the irrigation of Egypt is being restored, the necessity of controlling the upper part of the country and river is forced upon those who already control the lower, and hence as in the days of Pharaoh Egyptian troops are fighting their way up past Meroe and through the deserts of Nubia.

The material prosperity of Egypt long survived the fall of her Empire, and indeed was only extinguished after many centuries of Mussalman and Turkish misrule. But even before her overthrow at the hands of Cambyses she had lost her title to be considered the leader of western civilization. Her failure was due to weakness as a sea power, to the domination exercised by despotism, bureaucracy and priestcraft over the industrial population; and to the fact that the commercial centre of gravity had shifted with the advent on the scene of the Phœnicians, the Jews and the Greeks. The first controlled the Mediterranean highways, the second for a brief space the land routes leading from Eastern and Southern Asia to the West. Of a more specifically commercial turn than the industrial Egyptians these two races carried with them on their dispersion that sheer desire for gain-bringing exchange (*i. e.*, exchange by which the one party in a bargain "bests" the other), which is the essence of the mercantile spirit and distinguishes commercial transactions from commonplace barter. This spirit the Greeks condemned — theoretically. Among the "best men" the merchant was reckoned as beyond the pale of the citizen-gentlemen ; he was a vulgar person whose vulgarity differed from that of the artisan and sailorman merely in its greater degree of accompanying 'cuteness. Practically, however, the Greeks proved both enterprising men of business (with a pretty talent for *chicane*, though not indeed up to modern standards of audacity or ingenuity) and clever artisans. One great thing at least they did for civilization and that was the popularization of coined money. By this not only was commerce rendered practicable on the widest scale, but the freedom and independence of the trader and worker were put in a fair way of being assured. Not until modern times indeed has this important right to be paid in coin instead of in truck or kind been conceded in full with all its concurrent advantages, but the honour of taking the first step in this direction belongs undoubtedly to the Greeks, slaveholders though they were.

The supremacy of two overwhelming powers, Carthage and Rome, following the general dislocation of forces caused by the conquests of Alexander effaced the mercantile supremacies of Phœnicia and Greece. The latter had never been able to render their sea power permanently effective, and so the dominion of the economic world passed to those who possessed greater powers of organization. In the inevitable duel between Carthage and Rome the latter stood forth as the supporter and champion of the Greek and more European elements in Western civilization, the former as the inheritor and representative of the Phœnician and more Asiatic. The fight was not, as it is often represented, one of the whale against the elephant with victory to the latter. Rome won because she beat Carthage at sea, without which success a dozen Zamas would have been ineffectual even if they had not been impossible. The triumph of Rome meant the triumph of the Greek spirit, and with it the assurance of all those varied phases of modern culture which we owe directly or indirectly to the Greeks, and with which the commercial temper of Carthage had no sympathy. The great Phœnician colony, indeed, but for the devoted patriotism of its citizens, would be fitly reckoned as the most striking instance the world has yet seen of a great state wholly given up to the sordid pursuit of wealth. This was the very evil that justified the sneers of the Greek philosophers and aristocrats at the commercial spirit and saved the sneerers from the reproach of prejudice. Greek sense of proportion strengthened by the Roman *disciplina* and later by Christianity have saved Europe from a premature subjection to the cult of Moloch-Mammon. Men are the less likely to endure such subjection in proportion as they understand that commerce is no end in itself, but merely one particular means toward that end which is the goal of all honourable labour.

Parallels have often been drawn between England and Carthage, Rome and Russia, and those who are rash enough to prophesy, when they do not know, predict from there specious analogies the destruction of the British by the Russian Empire. Needless to say the inference is fallacious. Rome was forced into the combat by hunger—hunger for grain not for land. Her territory was not self-sufficing, that of Carthage was, and Carthage controlled the food supply of Rome. The victory fell to Rome not because she was a great land-power, but because she met and mastered Carthage on the sea. There is not the same compulsion to drive Russia and England to a death-grapple, since the latter's maritime supremacy does not threaten the food-supply of the Russian people, and even if the struggle were brought about by some other cause there is no reason for us to fear Russia's merely geographical greatness.

The Roman power was destined to be the vehicle by which most of what is worth having in our modern civilization was handed down from the Greeks to us. Greece taught Rome, and Rome tried to teach the barbarians and not without success, but the knowledge of many things was either lost or obscured, so that had it not been for the persistence of a Græcized Rome at Byzantium, and the "Renaissance" movement which was quickened by its fall, the problems which are presented to-day for our solution would have taken a very different guise. At the bottom of them all, indeed, lies the eternal "labour question" which each age has to face, "How shall I get me food, and drink and the wherewithal to dwell in?" The only true answer is "By work," and this answer entails upon every Government the burden of securing the minimum reward of work. But this 'simple' problem is capable of countless variations and extensions, and who can say in what forms it would have been thrust upon us, had not Latin and Greek influences to a very large extent moulded and predetermined the actual form it bears to-day? The fall of the ancient classical civilization had been brought about largely by the want of coined money (the East had been a constant drain upon the gold and silver of the Empire) and by the action of Government in seeking to monopolize for its own coffers the remaining bullion, a policy which produced continual decrease in local and individual enterprise, the extension of usury, and the reversion of the poor worker to the position of a bond or serf. In Professor Cunningham's language a "natural economy" was substituted for the old civilized system. On that "state of nature" the modern civilized economy has had to be constructed from such ancient fragments as have survived and from such fresh material as has been found suitable for combination with the old or possessed of new and higher possibilities of its own.

THE TEACHERS' ASSOCIATION OF BOMBAY.

There have recently been unmistakeable signs of renewed activity in different educational quarters in this presidency; and there is no genuine friend of education but will hail the welcome change with satisfaction. The present revival (for such it is) may be said to have commenced with the opening of the Educational Conferences which were held under the orders of the Government of Bombay in different towns of the presidency in the latter part of 1896. It is too soon yet to estimate the good done by these meetings in which men and women actively interested in educational work were encouraged to give public expression to their experiences and views, under circumstances which ensured them a calm, sympathetic and impartial hearing. The moral atmosphere in which these discussions took place was eminently wholesome, the initiave and guidance of Government putting a check on reckless and ill-informed bluster, while it stimulated honest and intelligent criticism. That a mass of varied and valuable experience was thus brought to bear on the educational problem is certain; with results the nature and value of which time will show. These conferences, among other good results, drew attention to the importance of the comparison of experiences gained in actual teaching, and thus suggested the utility of organizations which afford those engaged in educational work opportunities of interchanging views and benefiting by one another's knowledge and experience. This conviction had begun to take shape in the minds of earnest teachers long before the conferences were held; the ever-sympathetic Inspector of the Central Division (the Hon'ble Mr. T. B. Kirkham) had, in the course of his visits to different schools, frequently deplored the absolute isolation in which most school masters had been doing their work, and had pointed out the immense good which would accrue from greater mutual sympathy, larger mutual intercourse, and increased co-operation among those who followed the noble profession of teaching. The conferences helped to strengthen the growing conviction; and soon some of the more earnest workers in the field felt that the time had come to translate their belief on this subject into action. On the 4th of January of the current year, a circular letter, signed by *thirteen* well-known teachers of Bombay, was addressed to the managers of schools and other ladies and gentlemen known to be interested in the progress of education. The letter complained that "at present there is no society in Bombay for the discussion of the theory and practice of education, and those engaged in teaching scarcely get any opportunities of hearing about one another's work. Teaching thus suffers in efficiency, as workers in this field find very little mutual sympathy and encouragement." With a view to consider what might be done to remedy this deplorable state of things the signatories to the letter invited a number of their friends to meet at the John Connon High School (Fort) on the 15th of the month. The invitation met with a very hearty response. A large number of ladies and gentlemen assembled at the appointed place, and after the object of the meeting had been explained by the speakers, the following resolution was unanimously adopted:—that "this meeting considers it desirable that an association should be formed in Bombay for the discussion of the theory and practice of education specially, and generally for the benefit of those engaged in educational work; that this meeting is of opinion that such an association is calculated to advance the cause of education in this Presidency." Such is the origin of the Teachers' Association of Bombay. The principals of most of the important schools in the city and other well-known and experienced teachers have joined the Association, which has been, moreover, fortunate enough to secure for its President, Mr. James MacDonald, Principal of the Scottish High Schools, who from his experience of more than 40 years' teaching (thirty of them in Bombay) may be fitly called the Nestor of the teachers of Bombay. It is not the purpose of this paper to explain the aims and objects of the Association, or the methods by which it is sought to realise them. These subjects it is hoped to explain fully in articles which will subsequently appear in the *Record*; but it must be evident to every thoughtful teacher that an Association of this kind conductep with energy and public spirit has large possibilities of service to the sacred cause of education.

At the heels of the Teachers' Association came the announcement that "on the 1st of July next, the publication of the *Bombay Educational Record* will be resumed." This publication (or rather re-publication) is the outcome of the resolve on the part of its managers and editors that the Bombay Presidency shall not be any longer "without a journal recording its educational progress, and affording a medium for the expression and interchange of thought to the scholastic, academic and literary forces present in Bombay." The President of the Teachers' Association is, fortunately, joint editor of the Review, so it may be confidently expected that the two educational agencies will work in friendly co-operation, both helping to widen and deepen the influences which make for progress and enlightenment.

These are not strictly speaking new departures. Educational Conferences, Teachers' Associations, and Educational Records have not been before unknown in the history of education in this Presidency; but their resumption now after some years' abeyance, marks an educational revival which, the writer devoutly hopes, will last and bear much good fruit.

N. G. WELINKAR,
Honorary Secretary.

EDUCATIONAL NOTES.

We are pleased to learn from the Quinquennial Report just issued by the Director of Public Instruction for this Presidency, that notwithstanding the misfortunes which have assailed the Presidency in 1896-1897, the Educational Department has been able to show unceasing progress in every branch of its work.

There seems to be a prospect of a change in the conditions of the University School Final Examination by which it will be made more accessible, and its popularity largely increased.

There is now a complete system of scholarships throughout the Presidency, maintained by all District Local Boards, and from Provincial Funds, by which a clever boy can win his way by competition from the benches of a village school up to the highest examinations of the University; and in that system special provision has been made for the backward races, for whom a certain number of scholarships are reserved.

We understand that the Educational Department has under consideration to hold examinations in the knowledge of school method and the science of teaching, of which due notice will be given. If we remember rightly, there was such an examination upwards of twenty years ago, but it was probably discontinued.

In a report of the proceedings of the School Board of Bradford dealing with the three years ending November 30th, 1897, a little remark on ventilation is instructive. It seems there are schoolrooms in Bradford which are ventilated by the ony, system worth the name of ventilation, that is, mechanically having appliances which, set in motion by machinery, sweep fresh air in and foul air out. All other kinds of ventilation are practically of no effect. They are uncertain in action. Air is a solid body, a fact which we are all apt to forget; and of we want it to come into our houses at a certain rate, and to go out at a certain speed, why, then, we have to make it come and go. We can do this only by the aid of machinery, and this is why mechanical ventilation is the only means we can rely on to give us an effective air-supply. This is the science of ventilation in a nutshell.

A Memorial, signed by Professor Rhys Davids, Professor Monier-Williams, Professor E. B. Cowell, Lord Northbrook, Lord Stanley, Sir George Birdwood, and others interested in Oriental literature, has been addressed to the First Lord of the Treasury. The subject with which it deals is certainly one of the most remarkable in the history of letters. Many of our readers are aware of the translation of the *Mahabharata* associated with the name of the late Babu Pratab Chandra Roy, but not so many know that though the Babu received a C. I. E. for his work, he had nothing whatever to do with the translation, except as an advertising agent. The translator was Pandit Kissari Mohan Ganguli, a well-known Sanskrit scholar in Calcutta, but during the many years which it took to accomplish the translation of a work seven times as bulky as the Iliad and the Odyssey combined, the Pandit lay low, and the Babu pushed the work in public and received all the acknowledgments. The translation is admitted by Western

Sanskritists to be a work of exceptional merit, and the memorialist ask that as Pandit Mohun Kissari Ganguli is now advanced in years and with scanty resources, the British Government should give him a Civil list pension. There is no precedent for such a proposal, but neither is there anything prohibitive in the rules governing such pensions : and though it is something of an exaggeration to say that the service rendered to the Empire by the translation can hardly be overrated, we agree with the memorialists that the work merits Government recognition, and that such an honour paid to an Indian man of letters would be widely appreciated.

The authorities at Bradford have been solving the ventilation problem. The amount of carbonic acid gas—the gas we give forth from our lungs as bodily waste—in the play-ground was taken at 100. This amount may therefore be called the standard of fresh air. When the air of the school-rooms which were ventilated by the ordinary method, that is, by windows and the like, was analysed, the carbonic acid in it in the afternoon, after two o'clock, was 200, or double that in the outside, and rose, at 4 o'clock, to 700, while in one case the amount was actually 972. The rooms which were ventilated by mechanical means presented a striking contrast to this "Black Hole" of Bradford conditions. For, all through the afternoon, the amount of carbonic acid gas in these rooms never rose above 200—a very wide difference between that and 900. What effects would these two atmospheres, the one fairly pure, and the other reeking with impurity, exert on the frames of the children at school? The proper reply would be listless brains, wandering attention, restless bodies, and tired eyes—all telling against the work of the teacher. Such results follow from the breathing of impure air; and the lesson of the Bradford schools is a lesson for all of us for all time. When we arrive at a true appreciation of the value of fresh air, we shall then agitate for school-houses constructed on a system to guarantee that *Black Hole* rooms will be no longer represented in the lives of the people.

THE PARSEE GIRLS' SCHOOLS ASSOCIATION.

The fortieth Annual General Meeting of the Subscribers was held on Saturday afternoon in the hall of the Bai Bhikhaiji Bengalli Girls' School, Mr. K. R. Cama, the President of the Association, occupying the Chair. There was a pretty large attendance of subscribers. After the school girls had sung a few songs to the accompaniment of a harmonium, Mr. Darasha K. Chichgar, the Honorary Secretary of the Association, read the report, which went to show that the Association had completed its fortieth year. In the several schools managed by the Association there were at present 796 girls, varying from 5 to 18 years of age, receiving education, the total funds of the institution amounting to Rs. 1,37,433. The income derived last year amounted to Rs. 20,342, the expenditure incurred being Rs. 14,308. The several donations and benefactions made during the year having been announced, the report was unanimously adopted. Mr. J. N. Tata distributed prizes, consisting of medals, scholarships, and books, to the successful students. The Chairman then addressed a few encouraging words to the girls, and proposed that the best thanks of the Association be given to Mr. Darasha R. Chichgar, the Honorary Secretary, who had been instrumental in introducing in the several schools of the Association the Kindergarten system of education, and had been devoting much of his time and energy in the furtherance of the cause of female education in the city. Mr. J. N. Tata seconded the proposition, which was carried by acclamation. The Chairman then announced that Mr. Chichgar, the Honorary Secretary, has promised a donation or the value of about ten thousand rupees by Mr. Motabhoy Bhikaji Contractor, whose daughter was a student in one of the schools of the Association, towards the maintenance of the school at Mazagon. The announcement was received with loud applause. A vote of thanks to the Chairman terminated the proceedings.

LORD REAY ON ORIENTAL STUDIES.

The Annual Meeting of the Royal Asiatic Society was held on Tuesday, May 10, Lord Reay presiding.

During the year the Council has issued a special appeal for subscriptions to a fund to found a medal in memory of the completion of sixty years of Her Majesty's reign, to be presented once every three years to a subject of the Queen in recognition of distinguished service in Oriental research. The first recipient would be Professor Cowell, of Cambridge. Lord Reay observed that their Society was undoubtedly in that country the representative of all that concerned the development of Oriental studies. The Secretary had collected information of a most valuable character with regard to the provision for Oriental teaching which was made in some of the capitals of Europe, and he (Lord Reay) maintained that the state of things existing in London in connection with that subject was in comparison nothing less than a disgrace to that country. Since the end of the last century philology had been enriched by the "open door" to the treasures of Indian classics. The study of Indian classics, partly relating to a much older epoch than Homer, now stood on the same footing as the study of Latin and Greek, and, if they considered their relations with India and with the

East generally, he had no hesitation in saying that the study of Indian philology was certainly not less important for them than that of Roman and Greek literature. The great want when two great races came into close connection was that they should thoroughly understand each other and scrupulously respect the idiosyncrasies which differentiated them. Philology had the great merit of powerfully contributing to the reciprocal respect which was the basis of continuity of empire in a country where there were so many different races represented. If they were to solve the problem of present developments in the East in their own time, they could not do so without consulting the records of the past. The neglect of Indian classics was, therefore, not merely a loss to English scholarship: it raised a fundamental issue with regard to their governing capacity. The new London University would have to grapple at once with the organisation of these studies. The report was adopted.

HISTORY OF BUDDHISM.

Mr. Vincent Smith, C. S., and Dr. Vost, two of our leading Indian Buddhist scholars, are about to publish their recent discoveries in connection with the early history of Buddhism, and particularly of the great Gautama Buddha, and founder of the faith. Mr. Smith and Dr. Vost have made important researches in India in connection with the birth-place and home of Buddha, and the Royal Asiatic Society will publish the details of their discoveries. These have been made in the Nepaul terai, on the borders of Oudh. We have already published details of the investigations of Mr. Smith and Dr. Vost, and it will be remembered that through the discovery in the jungle of two pillars of Asoka they were able to locate the birthplace and home of Buddha, whilst they also believed that they had found, besides important relics, the site of the city of Sravasti in which Buddha spent many years of his ministry. The book about to be published should be of great interest, and it is already predicted at home that the portion of the Nepaul terai in question will become a sort of Buddhist Mecca; for when the news of these discoveries spreads amongst the Buddhists of the Far East, there will be much excitement, and scholars and devotees are certain to venture forth on pilgrimages to the sacred locality.

NOTIFICATIONS.

BOMBAY.

Publications.—Bombay Educational Record and Literary Journal.
Permission granted to Professor J. G. Coverton to edit the.—
Sanction accorded to Educational Officers and Institutions to subscribe for the— in lieu of the Indian Journal of Education published in Madras.

Educational Department.

No. 621. *Bombay Castle, 28th May* 1898.

Letter from the Director of Public Instruction, No. 356, dated the 22nd April 1898, stating as follows :—

"I have the honour to report that the Bombay Educational Record was abolished from 1st January 1895, under Government Resolution No. 305 of the 13th February 1895, and that since that date no Educational journal has been published in English in this Presidency. The late Director of Public Instruction recognised the Madras Journal of Education, and it has been generally subscribed for by schools under the authority of Government Resolution quoted above. The Journal has also been used for the publication of Departmental notices.

"2. In my opinion it was a matter for great regret that the Bombay Educational Record came to an end, and I have been for some time considering how an educational journal for this Presidency could with advantage be established. I have now the honour to report that Mr. Seymour Hale, the agent for Messrs George. Bell and Sons, Blackie and Sons and other English publishing firms, has undertaken to revive the Bombay Educational Record from 1st July 1898 under the title of the Bombay Educational Record and Literary Journal.

"3. Mr. Hale has secured the services of two gentlemen as Editors. Of these one is Mr. J. Macdonald of the Bombay Scottish Education Society, and President of the lately established Bombay Teachers' Association, and the other is Mr. J. G. Coverton, M. A., Professor of English and History, Elphinstone College, Bombay. Under the guidance of these two gentlemen the Journal will be a purely educational and literary production and will have nothing to do with politics. Mr. Hale guarantees that any articles, which may appear to be in any sense political, shall be submitted to me for approval before they are published.

"4. It is proposed to charge a yearly subscription of Rs. 5 for the record, and I have the honour to ask that Government will if my proposals generally are approved, allow all Departmental institutions which now subscribe to the Madras Journal of Education to subscribe to the

Bombay Educational Record from July 1st. I also request that Government will grant to Mr. J. G. Covernton the permission to edit the Journal which is required under Government of India Resolution No. 19—1134 of July 8th, 1875.

"5. The earlier numbers of the Journal will be submitted to Government for approval, and I need hardly say that if the journal disappoints our expectations, it can at any time be repudiated. But I feel very strongly that an Educational journal of the kind proposed is an Educational necessity in this Presidency, and I have every confidence that, under the management proposed, the revived Bombay Educatonal Record and Literary Journal will have as successful a career as the old journal had under the supervision of the Department."

and making remarks.

Government memorandum No. 517, dated the 30th April 1898, to the Director of Public Instruction:—

"Returned to the Director of Public Instruction for favour of report whether Mr. S. Hale undertakes to publish Departmental notices free of charge as has hitherto been done by the Madras Journal.

"2. The subscription for the Madras Journal is paid for the year from January to December, so that if the Bombay Record is subscribed for from the 1st July next, there will be extra expense for the half year. Mr. Giles is requested to state whether the presumption that this can be met from the contingent grants of the officers and institutions concerned is correct."

Letter from the Director of Public Instruction, No 732, dated the 9th May 1898.

Stating, with reference to Government memorandum No. 517, dated 30th April 1898, that Mr. S. Hale undertakes to publish Departmental notices free of charge and that the extra expense on account of the subscription for the proposed Bombay Educational Record from July to December 1898 will be met from the contract grants of the officers and institutions concerned.

RESOLUTION.—On the condition mentioned at the end of paragraph 3 of the Director of Public Instruction's letter No. 356, dated 22nd April 1898, Professor Covernton is permitted to edit the Bombay Educational Record and Literary Journal.

2. The proposal to allow all Departmental institutions to subscribe for the Record from the 1st July next is sanctioned. The extra cost involved by this arrangement for the period from July to December 1898 should be met as suggested by the Director.

3. Mr. Giles should be requested to arrange for the supply of a copy of the Record to this Department.

A. M. T. JACKSON,
Acting Secretary to Government.

To

The Director of Public Instruction,
The Financial Department of the Secretariat.

List of Appointments in the Educational Department from 1st June to 15th June 1898.

3rd June 1898. Mr. S. V. Soman is appointed Instructor in shoeing at the Bombay Veterinary College, *vice* Mr. E. H. Brand, resigned.

6th June 1898. Mr. Ramchandra Govind Apte, B.A., 3rd Assistant, B. J. High School, Thana, is appointed 2nd Assistant, Garud High School, Dhulia, *vice* Mr. V. V. Patawardhan, transferred to Belgaum.

8th June 1898. Mr. Narayan Chintaman Kelkar, B.A., 4th Assistant, Sholapur High School, and *sub. pro tem.* 4th Assistant, Poona High School, is appointed 2nd Assistant, Satara High School, *vice* Mr. S. R. Vanavle, promoted.

E. GILES,
Director of Public Instruction.

Poona, Office of the
Director of P. Instruction,
22nd June 1898.

Municipal Matters—
Payment of Municipal taxes on Government buildings.

General Department.
No. 3193.

Bombay Castle,
6th June 1898.

Resolution of Government.

It has recently come to the notice of Government that Municipal taxes have sometimes been paid on Government buildings without proper inquiry as to the liability of such building to Municipal taxation. The present procedure for the payment of such charges is laid down in Government Resolution No. 221-A—1379, Public Works Department, of 27th August 1885, and Government Resolution No. 2427 of 13th July 1893 (General Department), but it has been contended that the duty of the Executive Engineer is limited to certifying that the valuation of the building is fair. It is the duty of the officers of the Department that occupies the building to satisfy themselves that the building is liable to taxation under the Municipal rules for the time being in force, before asking for the Executive Engineer's certificate as to the fairness of the assessment.

A. M. T. JACKSON,
Acting *Secretary to Government.*

To

All Departments of the Secretariat,
The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
All other Heads of Offices under the several Departments of the Secretariat,
The Mint Master, Bombay,
The Assay Master, Bombay Mint,
The Post Master General, Bombay,
The Private Secretary to His Excellency the Governor,
The Prothonotary and Registrar of Her Majesty's High Court of Judicature, Original Side, Bombay, } By letter.
The Registrar of Her Majesty's High Court of Judicature, Appellate Side, Bombay.

Poona, Office of the Director
of Public Instruction,
22nd June 1898.

No. 1551 of 1898-99.

Copy forwarded to the Manager of the *Bombay Educational Record and Literary Journal* for publication in the next number of the Record.

E. GILES,
Director of Public Instruction.

Rules for the issue of Certificates of Age and Nationality to Natives of India who are Candidates for the Indian Civil Service.

General Department. Bombay Castle,
No. 3437. *15th June* 1898.

Memorandum from the Government of India, Home Department, Establishments, No. 406, dated the 19th May 1898—

Forwarding copy of the following Notification No. 404 of the same date, issued by that Government publishing rules to be substituted for Nos. VII. and XI. of the rules published in their Notification No. 2252, dated the 21st August 1888, for the issue of Certificates of age and nationality to Natives of India who are candidates for the Indian Civil Service—

"The Governor-General in Council is pleased to publish the following Rules to be substituted for Rules VII. and XI. of the rules published in Home Department Notification No. 2252, dated the 21st August 1888, for the issue of certificates of age and nationality to Natives of India who are candidates for the examinations for the Indian Civil Service held in England:—

VII.—If the Secretary to Government, Commissioner of a Division, or the highest Political Officer accredited to the State, as the case may be, shall be satisfied by the papers submitted that the candidate has stated the date and place of his birth correctly, he will issue a certificate declaring that the candidate has submitted the proofs of his birth to the Magistrate of the district or the Political Officer of the State, as the case may be, and has satisfied him that he was actually born on or about the date stated by him, *vis.*, the day of 18 , at , a place within Her Majesty's Dominions. The nature of the evidence produced by the candidate must be stated in the certificate, which shall be given in the following form:—

I hereby certify that , who is a candidate for the Indian Civil Service, has submitted the proofs of his birth detailed† below, and has satisfactorily shown that he was actually born on or about the date stated, *vis.*, the day of 18 , at , a place within Her Majesty's Dominions.

† [Here enter details.]

* * * * *

XI.—If the Secretary to Government, Commissioner of a Division, or the highest Political Officer accredited to the State, as the case may be, shall be satisfied by the papers submitted that the candidate has stated the date and place of his birth correctly, and has established the fact that though born without the limits of Her Majesty's Dominions, he is the son or grandson of a person born in those dominions, he will issue a certificate in the following form stating the nature of the evidence produced regarding the candidate's birth:—

I hereby certify that , who is a candidate for the Indian Civil Service, has submitted the proofs of his birth detailed below, and has satisfactorily shown that he was actually born on or about the date stated, *vis.*, the day of 18 , and that he was born at , a place without Her Majesty's Dominions, but that he is the son of a person born in those dominions.
gandson

[Here enter details.]

Memorandum from the Revenue Department of the Secretariat.

No. 3664, dated the 2nd June 1898.

RESOLUTION.—The Notification of the Government of India should be republished in the *Bombay Government Gazette*.

2. Copies of the Notification should be forwarded to the

Commissioners of Divisions, the Commissioner in Sind, the Chief Presidency Magistrate, the Director of Public Instruction, all Political Officers and all District Magistrates, including those in Sind, for information and guidance with reference to Government Resolution No. 3180, dated the 8th September 1888.

A. M. T. JACKSON,
Acting *Secretary to Government.*

To

The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
The Chief Presidency Magistrate,
The Director of Public Instruction,
The Political Agents, Kathiawar, Cutch, Kolhapur, and Southern Maratha Country, Rewa Kantha and Mahi Kantha,
The Political Superintendents, Palanpur and Savantvadi,
The Political Resident, Aden,
All District Magistrates, including those in Sind,
The Political Department of the Secretariat,
The Judicial Department of the Secretariat,
The Educational Department of the Secretariat,
The Revenue Department of the Secretariat,

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*Poona, Office of the Director
of Public Instruction,*
21*st June* 1898.

No. 1535 of 1898-99.

Copy forwarded to the Manager, *Bombay Educational Record and Literary Journal*, for publication in the next issue of the *Record*.

E. GILES,
Director of Public Instruction.

NOTIFICATION.

The attention of the Head Masters of High Schools is drawn to the "Philips' Indian Empire Copy-books"* which are sanctioned for school use. The copy-books can be obtained from Book sellers in Bombay at one anna each, and in the Mofussil at one anna and six pies each.

*Poona, Office of the Director
of Public Instruction,
21st June* 1898.

E. GILES,
Director of Public Instruction.

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* Kept for inspection in the Educational Library and Museum.

REVIEW.

'A History of France,' being 'The Students' France' (by W. H. Jervis, M.A.), revised and partly re-written by A. Hassall, M.A., (London, John Murray, Bombay. The Publishing House.)

'The Students' France' in its new form is a most compact, and therefore very useful volume which includes a plain but thorough account of French affairs from the earliest times to 1870. Written by Englishmen, it is not to be expected that it should present altogether the French point of view, but perhaps it is none the worse for that. A more definite merit is that, though it evidently lays no claim to be reckoned among the ranks of 'philosophic histories,' it sets out concisely yet clearly the *process* by which Roman Gaul was gradually converted into Modern France, a ready understanding of which is facilitated by the system on which the book has been divided. The 'notes and illustrations,' again, will be very useful to students who wish to extend their reading and who are able to realise that other views of events than those actually set forth in the text may be possible if not probable. Mr. Haverfield's chapter on Ancient Gaul is particularly interesting and well-worthy of his reputation gained in a subject which he has made peculiarly his own.

MANAGEMENT NOTICES.

The Editors invite communications on subjects connected with education, and also contributions of educational intelligence in the shape of reports of meetings, school examinations, &c., from all Educational officers, and from other persons interested in education. Schoolmasters in particular are invited to make free use of the correspondence columns of the 'Record' for the interchange of experiences, and the mutual elucidation of difficulties connected with the management of their schools. All contributions, books for review, &c., should be addressed to the Editors, "Bombay Educational Record and Literary Journal," 53, Esplanade Row, Fort, Bombay. Articles intended for publication in the succeeding issue should reach the Editors on the 15th of the month.

All remittances and business communications regarding advertisements, &c., should be forwarded to the publisher, the *Bombay Educational Record* Office, Esplanade Row, Bombay. Subscribers to the *Educational Record* may have approved advertisements for Assistants wanted, &c., inserted free of charge, but these advertisements must reach the Publisher not later than the 24th of the month for insertion in the next issue.

Established 1864—1894, *re-issued* 1898.

The Bombay Educational Record And Literary Journal.

Vol. XXXI.] AUGUST 1898. [No. 2.

EDITORIAL.

To those who study the tendency of University affairs, the past few months both here and abroad have been very fertile in interest. In London there has been a vigorous attempt—not, let us hope, to be suppressed or foiled like its predecessors—to give the metropolis a University that shall be something more than a mere *magni nominis umbra*. At Cambridge the proposal to receive within the sacred circle of the ancient foundations a college of avowedly sectarian principles, designed for the sole education of the priests of a particular church, has been rejected although those who rejected it were enemies neither of religion nor of reform. Royalty has set the seal of its approval upon the University Extension movement by assisting at the opening of a college at Nottingham which is to be entirely devoted to the benefit of those persons whose pursuit of knowledge the extension scheme endeavours to promote. Lastly, here in Bombay, two suggestions which, if translated into law, would affect in no small degree the present order of the University, have been brought forward for the consideration of its members. Of these one is still, in a manner, *sub judice*, and there, for the present at any rate, we intend to let it rest undisturbed by comment or criticism. The other, the proposal of the Hon. Mr. Justice Ranade, to introduce a recognition of the vernaculars into the University curriculum, has been already disposed of by the Faculty of Arts.

Now we do not pretend that there is any occult and intimate connection between these various phenomena, but, nevertheless, since each has a significance of its own, we would point out that that significance is not without importance for all who, in any way, are brought into relation with University teaching in India. Each, in fact, raises questions that must appeal to us of Bombay in a very special manner. Have we, for instance, a perfectly clear conception of the functions of a University? Do we realize what the principle of academic toleration implies, and what the limits are outside of which toleration becomes, not merely a crime but worse, a blunder? What, again, *is* University Extension? Can it be taken seriously, or are we to relegate it to the limbo of 'People's Palaces,' 'Penny Readings,' 'Young Ladies' Cooking Classes,' *et hoc genus omne?* That the Faculty of Arts in its refusal to accept Mr. Ranade's proposal was not animated by any spirit hostile to the vernacular as such was made abundantly clear, but is the principle on which that refusal was based equally clear?

These are all questions of the first magnitude, and to seek answers for them out of hand would be no less inconclusive than presumptuous. Nevertheless, we may hazard one or two hints which at least will show the lines on which we ourselves would look for light. Let us take the points *seriatim*.

In respect to a University we shall not perhaps go far wrong if we regard it from the most general point of view as an institution for the encouragement of Learning. The encouragement may be given in various ways and with various ulterior objects, but that does not prevent our simple description from holding good. However, when we consider the various methods by which Learning may be encouraged, the different objects which men will aim at in so doing, and above all the precise meaning of the word 'Learning' itself, we find that we are passing from simplicity to matters of extreme complexity. For instance, is 'Learning' to be identified with 'Education'? The ancient Universities thought much of the former, as they conceived it, and troubled themselves but little with the latter, and their example is still followed on the Continent. In England on the other hand we prate of the 'educative influence' of our academic courses, and some people apparently expect our Universities to take the place of the old-time 'bear-leaders' and to attempt to mitigate the manners and the morals of cubs into whose minds it is useless to instil 'humane letters.' The youth are to receive the form without the content; by studious abstention from learning at the University they are to acquire a capacity for learning hereafter! Young Philistines at play are at once the outcome and the *reductio ad absurdum* of such views.

But what is to be said of bodies that exist for the promotion of neither learning nor education, bodies whose sole end is examination, or the conferring of degrees, possibly without examination? Surely, such are but the shadows of a shade! The system of the middle ages and of modern Germany has its defects, but it has turned out scholars in the past and continues to do so in the present. The Oxford and Cambridge system is liable to perversion to the very limits of burlesque, yet rightly applied it has never failed to produce at least gentlemen. Scholars we know and gentlemen we know, but the products of this third system, what are they?

It may be objected that we beg the whole question. Academic institutions test learning and education through the medium of examinations and reward them, when approved, by the gift of a degree. Such an argument deserves no mercy, however much we may pity the condition of those who advance it. You cannot test *Learning* through the vulgar mechanism of examinations, still less can you measure *Education* by their means. Examinations are not for those who seek knowledge for its own sake, and practical life, not set forms of words, is the true test of education. To make examinations and degrees the objects of a University career—and this is what has happened and is only too likely to happen—is to raise means and accidents to the place of ends and essentials. In so far as the former are not mere hindrances they seem but devices of weakness, necessary stimuli to the feebler brethren, not in any sense 'encouragements' to learning. As to degrees, they are only flummery and wholly worthless in themselves. What is wanted is not such encouragements as (if backed by nothing else) are worse than useless, but a system which, while holding firmly in view the pursuit of learning, shall also—seeing that it may have to be applied to many youths not purely students—endeavour to educate them, not for this or that profession, but, generally, for the conduct of life befitting good men and worthy citizens. Let Bombay, if she may, seek this ideal and ensue it, if she may not, then let her choose with no uncertain voice between Education and Learning; but before all let her flee as from the abomination of desolation that dangerous deceit the merely examining University.

It seems difficult to conceive a modern University, under whatever system, in which religious toleration does not prevail, and yet there is no lack of instances to the contrary. But although Universities, both ancient and modern, founded for the benefit of the members of a particular church or creed are common enough, these stand apart and cannot be classed with the typical University of the 19th century. The basis of the latter is not atheism, nor agnosticism, but a broad spirit of tolerance, which recognises all faiths that are not hurtful to the moral development of man or to the well-being of the State, and which, while recognising all, favours none. No one will dispute the good which must be the outcome of such a freedom from sectarian partisanship, especially in a city like Bombay. But on the other hand this tolerant spirit must not be abused, nor allowed to react detrimentally on the effectiveness of the University. And such a calamity is quite possible. When to allay the scruples or the fears of this or that sect, University teaching is cribbed, cabined and confined, when branches of study are curtailed or emasculated, the works of recognized authorities or of classical writers debarred or mutilated, toleration has been carried to excess and constitutes a danger of the most serious kind. If special courses or special modifications are required by certain sects, these privileges should be sought in special institutions of their own, and Cambridge decided rightly, when she rejected an appeal which was tantamount to a demand for distinctive rights, that would, if conceded, have subverted the existing system of the University or have at least created an *imperium in imperio*.

No such peril is to be apprehended from "University Extension," so long, at all events, as it is clearly understood that the movement is in no sense an equivalent for a sound academic system, and that it is in a manner wholly external to the University with which it is associated. The "extension" implied does not refer to any addition to or improvement of the actual teaching or staff of any University, nor does it mean—more perhaps is the pity—'endowment for research.' Its simple purpose is to spread, as far as is possible, the benefits derived from University training and culture among those classes for whom they have hitherto been considered out of reach. In America valuable results are said to have been achieved through the medium of classes and lectures superintended and delivered respectively by University graduates trained for the purpose. It is possible, however, that the Americans have deceived themselves into accepting very superficial effects as deep and lasting impressions and that the culture thus propagated is of a somewhat flimsy and slipshod order. At any rate in England, where however the organization has been far less perfect, the movement cannot be said to have given unqualified satisfaction. Complaints are made that the lower classes for whom it was originally intended are precisely those whom it does not touch, or who will have none of it. The great middle-class in fact has seized upon its benefits for itself and has converted efforts once applied to brighten and humanize the sordid lives of its humbler brethren into scrambles for tea and cake at dilettante tea parties and philosophic picnics. Thus the only results have been the multiplication of prigs, a surplus of sciolism and a maximum of discontent. That these charges are not absolutely true has been shown by the establishment of the new college, but eloquent witness though this foundation is of an improvement in organization and a maintenance of enthusiasm, we are not sure that it is altogether a healthy sign. If it presages an attempt to erect an experiment into a competing system, the rival of that to which it owes its birth, if it indicates that the people are ready to be content with the mediocre instead of striving for the best, it is to be deprecated as likely to prove a hindrance to the true cause of Higher Education, as an *ignis fatuus* that will land its followers into the quagmires of superficiality and self-conceit.

If such are the dangers that beset the movement at home, where at least a majority of the people possesses the rudiments of letters, how much caution should be necessary in introducing such a scheme into India, where those dangers threaten in a far intenser form? Can we afford to water down the wine of what learning we possess, in order to give it a cheap popularity and a ready sale? And there are practical obstacles. In England and the United States, University extension virtually pays its own way, could it do so here? There we find large classes of practical men, petty shopkeepers, engineers, artisans and the like, who at any rate have the capacity to benefit by the scheme, if it can reach them and if they will accept it. In India we fear that it would be a small non-practical class of semi-literati, the literary proletariat together with a few professional men, who would monopolize the advantages to be gained and whose want of practicality would certainly not be diminished thereby. At home the movement was meant for the masses, what would the masses make of it here? If education, as we think, must be, built gradually upwards from broad and firm foundations, then we cannot admit that the times are yet ripe for the introduction into India of such a scheme.

An authority of some eminence once said in our hearing that he feared the whole course of our higher education in India was too hard for those for whom it was intended. From this cause arose the constant attempts to modify—and always in one direction—the existing curriculum. But while it is undeniable that the effort to grapple with the difficulties of a complete European education entails a very serious strain upon Oriental students, a strain which in our opinion many are unfit to undergo and from which the weaker natures may incur real harm, still, since the present system has been finally decided upon, and has received a certain amount of effective organization, we should resolutely refuse to listen to any proposals for changes that may lessen its effectiveness or lower such prestige as it may have acquired. The recognition of the Vernaculars for which Mr. Ranade pleaded, might not have brought either of these disasters in its train, but undoubtedly if conceded for the B. A. course it would have speedily ousted the 'voluntary' study of the classics, and though this might 'make things easier' for the student, no one, we trust, will maintain that it would have been beneficial to the University. The amendment so ably urged by Dr. Mackichan sketched the only sound policy practicable, if the proposal was to be in any way accepted. To trace the historical and philological development of a vernacular, to undertake a comparative study of its literature, to methodize from a critical stand-point its syntax and prosody would be tasks worthy of advanced students with plenty of time at their disposal. To expect them from junior men would be unfair, and yet no other method of dealing with the vernaculars would be in the least satisfactory from an academic point of view. Those who threw out Dr. Mackichan's amendment came perilously near advocating the adoption of an obviously inferior method and thus ran the risk of identifying their views with what we can only style 'a policy of out-door relief,' a policy which seeks to relieve students of their burdens on principles external to the grounds of sound academic practice and alien to the objects which a great University should hold in view.

THE UNIVERSITY AND THE VERNACULARS.

At a Meeting of the Faculty of Arts of the University of Bombay, held on July 4th, at 5-15 p.m., and presided over by the Hon. Mr. Giles, the Hon. Mr. Justice Ranade asked for the Faculty's approval of the proposal contained in the subjoined letter addressed to the Vice-Chancellor.

To

THE HONOURABLE E. T. CANDY,
Vice-Chancellor, Bombay University.

SIR,

We beg to submit herewith for the consideration of the Syndicate, and ultimately of the Senate, a proposal we desire to make with a view to encourage the study of the vernacular languages and literature in connection with the higher examinations of the University. The subject, as you are well aware, attracted the attention of the Secretary of State for India, and, at his suggestion, the Bombay Government recommended it to the consideration of the University some years ago. Various proposals were made accordingly to give effect to this suggestion. Ultimately the proposal took the form of a recommendation by the Syndicate that the candidates should be required to write an essay and to translate passages into their vernaculars in each of the higher examinations of the Arts Course. The motion was, however, rejected by the Senate by a small majority, thirty-four voting for it and forty-two voting against it. The particular grounds on which this proposal was rejected appear, from the report of the discussion that took place, to have been, first, that it would add to the burden of studies which was already heavy enough; secondly, that this burden would be unequally distributed, as there were some students who had not for their mother-tongue any of the vernaculars of this Presidency; thirdly, that essays and translations did not test Scholarship and would not encourage the study of the higher vernacular literature of these languages.

2. The subject is one in which many Fellows of this University feel deep interest, and we think that the time has now come for again considering how far the objections noted above can be avoided, and encouragement given to the study of vernacular literature in connection with the higher Arts Examinations of the University. The proposal we have now to make for the consideration of the

Syndicate—is (1) that candidates, who take up languages as their optional subject at the B. A. Examination, should be allowed the option of taking up either Marathi, Gujarathi or Hindustani as an alternative to the other Second Languages from which they are already permitted to make a choice. No change will have to be made in the existing rules, except the addition of these vernaculars to the list of other languages specified in rule 31, clause 2, page 46. (2) We also submit that the same choice should be allowed in respect of the optional second language in the Languages Course for the M. A. Examination by a similar change in rule 57, clause 1, page 64.

3. This double or alternative proposal will impose no compulsory addition to the existing course, as it will allow an option to every student to take up what language he pleases for his second language. Secondly, the proposal is not open to the objection of inequality in the distribution of subjects. Those who have no vernaculars, or do not care for them, may take up the old classics or the modern French or Persian, if they so choose. Thirdly, the proposal, if sanctioned, will test real scholarship, and encourage the study of the higher literature to be found in these vernaculars. Fourthly, it will not interfere with the claims of the classics, because in the B. A. course the student will have to study these classics amongst the compulsory subjects. It will thus be seen that our present proposal steers clear of the old objections and possesses some special advantages which should recommend it to the Syndicate and the Senate.

4. It might indeed occur to some that many students will not take advantage of this alternative choice allowed to them, and that the practical results will be inappreciable. Our reply to this objection is that there are no materials to justify any such apprehension. Further, even if few students were found to devote themselves to the higher study of their own vernaculars, these few students will be real scholars, and will be of incalculable service in developing in after-life still further the resources of their mother-tongues, and thus bring honour to the University. Moreover, the University will have done its duty in this matter, and the blame will then rest on the people themselves. The objection that there is no provision at present in any of the Colleges for the teaching of higher vernacular literature need not be considered, because such recognition alone will create a demand which will surely

in due time be easily supplied by special endowments and other agencies. Further, this objection applies equally well to many of the other languages already recognised by the University.

With these remarks we beg to submit to the Syndicate the proposal made above, and request that it will recommend the proposal to the Senate for its favourable consideration. A beginning might be made with Marathi, Gujarathi, Kanarese, and Hindustani, and the proposal is elastic enough to adopt itself to such a restricted experiment.

We beg to remain,
Sir,
Your obedient servants,
(*The Signatories.*)

Mr. Ranade was seconded by the Hon. Mr. Gokuldas K. Parakh, B.A., LL.B. An amendment was moved by the Rev. Dr. Mackichan, seconded by the Rev. H. Bochum, S. J., to the effect that "in the opinion of the Faculty the object aimed at in the Memorial cannot be attained by the introduction of the Vernaculars as an optional language into the B. A. Examination, but that a fitting recognition of the Vernacular languages and their literature may be found in the introduction into the M. A. Examination of the critical study of the history of these languages and their literature."

Dr. Mackichan advocated a thorough scientific study of the Vernaculars, such as was only feasible in the case of M. A. students. If this course was not to be followed, the only alternative was to extend and improve the study of them in the schools.

Mr. Tripathi spoke in favour of Mr. Ranade's proposition.

The Hon. Mr. Justice Budrudin explained that although he was one of the fifty-four signatories to the requisition made by his friend Mr. Ranade, he now knew that there hardly existed vernacular literature worthy of the name or of classical recognition. Under the circumstances it was far better, in his opinion, to adhere to the classics, and with that end in view he would not support even Dr. Mackichan's amendment. The classics had been the source of culture all the world over, and could never be equalled, much less bettered, by any other literature, which, at best, was composed of either translations or adaptations.

Professor Naigaumwala wondered whether a literature required to be encouraged at all. If it was literature worthy the name, it would grow of itself and create its reputation without any extraneous assistance. It was believed that about 800 works in Marathi already existed without having received any assistance from the University.

Professor Muller spoke in the strain of the Hon. Mr. Budrudin, and made out a strong case in favour of adhering to the classics.

Professor Velinkar supported Dr. Mackichan's amendment.

Some other speakers having also expressed their opinions, Mr. Ranade replied on the discussion. He said that it was high time, after allowing vernacular literature to grow for so long a time, that the University should do something for the encouragement of the study of that literature. The missionaries had done valuable service to the vernacular by their excellent translations, many of which, however, were in language that would not be understood by, or appeal to, the populace. Moreover, there would be no fear of deteriorating the standard of English by admitting the vernaculars to a just and due share of recognition. The answers to the questions would be given in English; but were it otherwise, namely, were answers to questions on vernacular subjects to be given in the vernacular, his object would be doubly attained.

The amendment was then put to the vote. There being 17 votes for and 19 against, it was lost. Mr. Ranade's proposition was then voted upon. There being 19 votes for and 19 against it, a tie was declared. The President then gave his casting vote against the proposition, which was thereupon announced to be lost.

The Meeting concluded at 7-30 p.m.

OBITUARY.

The late Sir Jamsetjee Jejeebhoy, Bart.

The name of Sir Jamsetjee Jejeebhoy is inseparably connected with high character and personal worth, and the holder of the title whose career has just closed fully supported the traditions and inherited the virtues of his ancestry. A worthy son of a worthy father, he possessed in a marked degree that striking characteristic of his famnly, quiet old-fashioned courtesy and perfect good manners. During his undergraduate days at Elphinstone College a quarter of a century ago, it was nothing less than a pleasure to meet in class this youth with expressive aristocratic features, unusually engaging disposition, and winning polished manners. A gentleman to the core in thought, word and action he was a pattern of good behaviour to his class-fellows, and by his courteous and dignified demeanour, uniform respect for authority and conscientious attention to every duty, he exercised a most beneficial influence over them. It was matter for much regret when his interesting and attractive personality was withdrawn from academic studies at an early stage that he might enter on the business of life, but he never forgot his college or tutors, and maintained the most friendly land affectionate relations with them to the last day of his life. In later years, in spite of the many occupations of a well-filled life, he gladly became one of the three trustees of the Endowment Funds of Elphinstone College, and his willing help and sympathy were ever at the service of his old College. He was a warm supporter of the interests of education not only in word but in deed, and was ever ready to assist in any educational or philanthropic organization. When in Bombay he was rarely absent from his place at meetings of the University Senate, and latterly, as a member of the Board of Accounts, he had rendered good service to his *Alma mater* by his financial talents and capacity as a man of business. He was an honourable high-minded man, possessing a nature of rare kindliness and courtesy, and his fragrant memory should be treasured by his fellow-countrymen and especially by all Elphinstonians. *O si sic omnes!*

J. T. H.

The late Lord Playfair.

The death is announced, at the age of eighty, of Lord Playfair, a man of conspicuous ability in many walks of life. Although essentially a scientific man, Lord Playfair was able, during his long life, to take an active part in public affairs, especially in social and educational questions.

A son of Mr. George Playfair, Chief Inspector-General of Hospitals, Bengal, Lord Playfair was born at Mirath in 1819, and was early sent home to be educated. He received his University training at St. Andrew's, where his taste for chemical studies was very quickly developed, encouraging him subsequently to enter as a student under Professor Thomas Graham, at the Andersonian University, Glasgow. In 1838, while studying Chemistry under Liebig, at Giessen, he translated several of his works into English. Between 1843, when he was appointed Professor of Chemistry at Manchester, and 1858, when he went back to Scotland as Professor of Chemistry in the University of Edinburgh, he filled several very important appointments in connection with the industries of the country. In his Chemistry class in Edinburgh, he had the honour of numbering among his students the Prince of Wales, and Prince Alfred, afterwards Duke of Edinburgh. Dr. Lyon Playfair made his entry into Political life, in the Liberal interest, as member for the Universities of Edinburgh and St. Andrew's, a seat which he held for seventeen years. In 1885, he was returned for South Leeds, which he continued to represent until he was raised to the peerage in 1892.

He was a member of many learned societies at home and abroad, and held numerous decorations, both British and Foreign.

JASHAN FESTIVITY OF PARSEE ELPHINSTONIANS.

Somehow or other all religions are at one in their doctrines concerning the blessed dead. All teach this ennobling truth that the dead sleep to rest but are ever awake to love.

> They do not die,
> Nor lose their mortal sympathy,
> Nor change to us, although they change.

The Jashan month of the Parsees is prescribed for remembering the pious dead and invoking their blessings. On these sacred halting-places in the journey of life bands of Zoroastrians meet together to "bathe their souls in the light of the beatified love of the dead," while round the blazing fire the presiding priest remembers the *Asho Farohars* one by one in a ceremony the most sacred, the most solemn, and the most inspiring. It is on such days as these that men feel themselves really in the presence of their dear dead ones, when their hearts grow tender, and their resolves to be ever faithful to their dear memories and to grow less and less unworthy of their holy love become firmer than ever.

No doubt the observance in these days is prone to dwindle into a mere meaningless form when festivity, the body of Jashan, is allowed to rule its soul, *viz.*, the pious memory of the departed. But such perversion is hardly possible when the hymns of the officiating priests and the impressive sermons of the learned Ervads form the order of the day.

Such, we are glad to state, was the case with the Jashan gathering of the Parsee Elphinstonians held on the 11th of July at the Allbless Bagh. Gratifying as it was to behold so many Elphinstonians absorbed in prayer, it showed at once how unfounded are the notions prevailing among orthodox natives that western education makes Indian youths indifferent in religious matters. On the contrary, comparing the grave and orderly attitude of the Elphinstonians during their prayers with the daily exhibitions of devotion along Back Bay, one can safely assert that western education, far from causing irreligiousness, enables educated natives to understand and discharge their religious duties all the better.

Conspicuous among the events of the day was the interesting and instructive sermon delivered by Shams-ul-ulma Ervad Jivanji Jamsetji Modi on Friendship and Brotherhood. Establishing by several passages from the Parsee scriptures that each Elphinstonian should "find his own in all men's good and work in noble brotherhood," the learned Ervad concluded by exhorting all the sons of one and the same *Alma mater* to stand by and co-operate cordially with each other and to scorn the "Miserable aims that end with self," so as to prove themselves worthy of the institution which bears the name of one of the greatest Anglo-Indian Statesman—Monstuart Elphinstone. Bigotry being a bane to brotherhood, Ervad Modi advised the Elphinstonians to practice toleration in all religious controversies, but it was left to Mr. K. R. Kama, the old Elphinstonian Avesta scholar, to dwell at greater length on this point and to assert that differences of opinion constitute one of the pleasures of life, and that therefore they are not to be slighted but used as a means to the discovery of greatest spiritual truths.

On the motion of Mr. D. D. Kapadia, late fellow of the College, a hearty vote of thanks was passed to the learned Ervad. Nor were the Principal and Professors of the College forgotten. In submitting the toast of the College and its learned professors, Mr. R. T. Masani said that the best thanks of the Elphinstonians were due to Principal Hathornthwaite for extending a helpful hand to any laudable undertaking of his students, especially for the hearty support he lent to these beneficial Jashan gatherings.

THE TOTAL SOLAR ECLIPSE OF 1898.

BY K. D. NAEGAMVALA.

A total solar eclipse is a phenomenon rare in more than one sense. It is as rare in the frequency of its occurrence as it is in the singularity of its beauty.

Though a total eclipse occurs on an average every second year, the available opportunities of observing it are not so frequent because very often the path of totality lies on the ocean surface, or on desert lands, or in the frozen polar regions.

As the occurrence is due to the coming of the moon in a direct line between the sun and the earth, it requires no elaborate mathematical demonstration to prove that eclipses should recur at definite stated intervals, if we bear in mind that the motions of the members of the solar system are controlled by the immutable law of gravitation and that they have maintained their rates of motion practically undisturbed through historic times. This periodicity of 6,585⅓ days (or 223 lunations) was known to the ancient Chaldeans, who called it a *Saros* or 'repetition.' They had evidently arrived at this remarkable result by a careful comparison of records of previous eclipses. However, the occurrence of the third of a day in the Saros and the rotation of the earth on its axis shift the position of the phenomenon on the surface of the earth at every recurrence by a third of a circle or 120°; this, coupled with other causes, makes the repetition of a total eclipse at a *given place* exceedingly rare. We may illustrate the shifting of the path at each succeeding Saros by taking the eclipse of January last and examining its past history. The same eclipse occurred in January 1880, when its path traversed the mid-Pacific, in December 1861 it had crossed the mid-Atlantic and the West African Coast, and on the still earlier occurrence in December 1843 the line had cut Southern India, Ceylon and Burma, thus completing a circle backwards at the third repetition. On this latter occasion the eclipse was observed by Dr. John Caldecott at "the Observatory of Trevandrum" (?). In an ever-recurring cycle it will be visible again in February 1916 in the West Indies and in 1934 its path will cross some surf-bound barren islands in the Pacific.

The average duration of the phenomenon is also very limited, ranging as it does under favourable circumstances from two to seven minutes. No astronomer, therefore, has gazed at a total eclipse of the sun even as long as on a single average night at a comet or a nebula.

The sublimity of the spectacle is said to transcend all description, and the present writer has heard people immediately after observing one eclipse vowing to undertake a journey of 5,000 miles to view the next. He himself can say nothing on the point. He was baffled in his search after the hidden sun in 1896 by unpropitious elements, and in January last he lost so much control over himself that he dared not remove his eyes from his spectroscope even to have a single stolen glance

> " . . . . when the sun
> In dim eclipse, disastrous twilight shed
> On half the nations."

A gifted authoress, not given to exaggeration, has described the eclipsed sun as shining with "the silvery, soft, "unearthly light of the incomparable corona with radiant "streamers stretching at times millions of uncomprehended miles into space, while the rosy flaming protuberances skirt the black rim of the moon in ethereal "splendour." The attendant phenomena are not less awe-inspiring. The 'shadow-bands' which have most likely their origin in our atmosphere, the portentous shadow of the moon sweeping over the landscape with fearful velocity, the rapidly growing chillness in the air and the overpowering gloom all lend an unusual and therefore an *unnatural* solemnity to such an occasion.

But it is not the spectacular splendour of the event that draws the astronomer to the inhospitable shores of the Arctic regions or to the miasmatic coast of West Africa or to the pestilential reefs of some uninhabited islet of the Pacific. It was not an idle curiosity which led the revered Stephen Joseph Perry to find an untimely grave on the Iles du Salut in 1889.

The sun is but a unit in the host of heavens, he is only one among many, but to us he is the nearest of them all. Ethereal undulations of light moving with the tremendous velocity of 180,000 miles per second take *eight minutes* to traverse the distance which separates us from the sun, but our next nearest neighbour in the stellar universe is situated at an incomprehensible distance requiring at least *seven years* for its light to reach us. No physical examination of the stars can throw so much light on their constitution as that of our sun. A careful examination of his structure and composition is therefore a problem of prime importance in physical astronomy.

As observed with the naked eye, shielded with a coloured glass to modify the glare, the sun merely presents the appearance of a bright refulgent orb, a careful scrutiny sometimes revealing small dark patches on his surface. With the help of a telescope he is seen, as a rule, more or less full of these dark *spots*, while the general bright surface, called the *photosphere*, is covered with irregular streaks of greater brightness "looking much like the flecks of foam which mark the surface of a stream below a waterfall"; these little 'torches' of light are called *faculæ*. The unaided telescope reveals nothing more, and how little it did to unravel the constitution of the sun cannot be more strikingly illustrated than by recalling the fact that the great John Herschel for a long time contended that the telescopic appearance did not preclude the possibility of the sun being an inhabitable globe like our own, a proposition which the spectroscope has demonstrated beyond all doubt to be absolutely untenable.

It is only the central portion of the sun that we see from day to day and the outlying regions occupying a greater space than the central nucleus are not ordinarily visible, as the general glare of the central mass drowns the feebler light of these appendages. But during a total eclipse this overpowering light from the body of the sun is momentarily screened off by the intervening dark moon, and the extreme edge of the disk of the sun and all that lies beyond it are made visible to us. It is during these few fateful moments that the astronomer can dive into the the secrets which otherwise remain hidden from him.

This physical examination of the sun during total eclipses may be said to have commenced with the Eclipse of 1842. In former times the sole astronomical use of such incidents was the correction of the received theories of the solar and lunar movements: the precise time of their occurrence was the main fact to be noted, and subsidiary phenomena received but casual attention. In 1842, however, an eclipse occurred in Southern Europe, and among the galaxy of astronomers who observed the event were such 'stars of the first magnitude' as Baily and Struve, Airy and Arago. The existence of the ruby-coloured prominences fringing the edge of the sun was put beyond doubt; some of them were measured and found to reach the height of 50,000 miles, and the form of the corona was also carefully noted. The prominences naturally draw more attention, and the question whether they were of a truly solar origin was hotly discussed. It was argued with great plausibility by some that they had no objective existence, and that the appearances were merely due to the diffraction of light in our own atmosphere, while there were others not wanting who located these prominences on the moon itself, high mountains refulgent under the light of the sun.

It was not till 1860 that the question was finally set at rest. Photography had sufficiently advanced to be applied with marked success on this occasion. Both Secchi and De La Rue took a series of photographs during the phase of totality. A comparison of the two sets indisputably proved that the same red flames had been photographed by the two astronomers at the two distant stations. Moreover, as totality progressed, each series showed that the prominences had been more and more exposed on one side and hidden on the other. This could only happen if they were solar in their origin. The enormous size of the prominences—and some of them have been recorded to reach the astounding heights of 200,000 miles, if not more—thus drew attention to the working of terrific eruptive forces on the sun.

The third notable advance was made in 1868, when that tiny but all powerful instrument of research, the spectroscope, was brought into requisition.

It is necessary here to digress a little and shortly to indicate how a small prism of glass can unravel the mysteries of nature and disclose the constitution of heavenly bodies.

That the colours of the rainbow could be produced with the help of a prism from white light was undoubtedly known to Seneca and some of the contemporaries of Newton, Grimaldi and Marcus among them, were well acquainted with the phenomenon, but the true explanation was first given by the great Newton himself. He demonstrated by a series of beautiful experiments that the prism split up the compound white light into its components. But the seven colours of the spectrum are not all homogeneous; each colour has its numerous shades and its "thousand tints." With a simpler source of light, giving only a few tints, the prismatic spectrum is correspondingly poor in colours. In fact, the prism only reproduces the image of the source in the various tints composing the light. Thus a sodium flame gives a yellow image of itself after passing through a prism, and a flame with thallium burning in it gives a green representation of itself, while one impregnated with strontium produces at least seven different images of distinct orange and yellow shades. An otherwise colourless spirit lamp flame, in which all these three substances are mixed, will give all the above flame-images together. And, similarly, some of the nebulæ thus observed give only a limited number of coloured images exactly corresponding to their telescopic shape, because they shine with light of much simpler composition than the sun or the stars. It is of prime importance, therefore, to remember that the prism in no way distorts the shape of the object examined, and it only gives as many images of the objects as there are tints in its light. The light of the sun passed through a hole in a darkened room and examined with a prism gives a band of continuous colour, because the numerous tints of its complex light closely follow one another in seried ranks, the large dimension of the hole causing a certain overlapping of the tints. If our spirit flame is not observed directly with the prism but a small round hole is interposed, the images naturally assume the shape and dimension of the hole, and all of them come out round; a square aperture similarly gives square images, and a thin interposed slit gives only luminous *lines* of the various colours. With sodium there is a single yellow line (split up into two by higher power), with thallium a similar one in the green, and with strontium there are seven different ones in orange and yellow-orange; the rest is all practically a void, a dark space.

When a slit was thus substituted by Wollaston for the round hole of Newton, he found seven *dark lines* in the Newtonian spectrum, and he naturally took them to be the boundaries of the seven colours; soon after, however, Fraunhofer made the astounding observation that the solar spectrum was not thus crossed by seven, but by some *seven hundred* lines. The explanation of Wollaston was therefore untenable; the true reason was to be sought in the *deficiency* of the tints in the solar light. What was true of the sun was also found by Fraunhofer to be true of the brighter stars that he examined.

This poor German shopkeeper—an optician—devoted a great part of his time to recording these lines in the solar spectrum, and they are universally known after him as "Fraunhofer's lines." But what caused this deficiency in the spectrum of the sun and the stars was beyond his ken, and for forty years after him, till 1859, it remained a mystery. In that year at Heidelberg, Kirchhoff, Professor of Physics and Bunsen, Professor of Chemisty at that University, demonstrated by laboratory experiments that a certain dark line in the yellow region of the solar spectrum corresponded exactly in position with the yellow line given by burning sodium, and by interposing burning sodium vapour betwen a prism and a lime-light they actually reproduced the solar phenomenon of a dark Fraunhofer line! The great principle enunciated by these two philosophers was that a substance emitting light of certain tints while hot will absorb light of the same character when it is comparatively cold. Applied to the sun it revealed for the first time the astounding fact that the cause of the dark line in the yellow region was the existence of comparatively cold sodium vapour outside the central glowing core of the sun. The foundations of celestial spectrum analysis were thus for the first time laid on a broad scientific basis. This principle is true in all cases of radiant energy. Stokes had taught it to his class at Cambridge and he had even hinted at the possible connection betwen the dark yellow line of the solar spectrum (the D line of spectroscopists) and the yellow line of burning sodium. His pupils, Kelvin and Balfour Stewart, had carried that teaching beyond the boundaries of the University of Cambridge, but the honour and glory of establishing the principle by exact experiments in connection with Light rest undoubtedly with the late Kirchhoff, and to a certain measure also with his colleague Bunsen, the venerable Emeritus Professor of Chemistry at Heidelberg.

(*To be concluded.*)

DEFOE'S ROBINSON CRUSOE.

(Continued from the July number.)

A third part of the story consists of Crusoe's *Serious Reflections*. These are seldom read now and, in some editions of the work, are entirely omitted; yet they contain a very amusing protest against false speaking. The particular evil which excites Crusoe's indignation is that of "supplying a story by invention." He solemnly affirms that this lying for the sake of amusement, which is regarded as a thing of no import, is a most scandalous crime,—an empty satisfaction purchased at the expense of conscience and of a dishonour done to truth. He goes on to explain why his own narrative does not fall under this condemnation. He writes, as he says, to please, for otherwise he will not be read; but his object is the instruction of mankind, and his tale is itself true because it is an allegory, "the beautiful representation of a life of unexampled misfortunes, and of a variety not to be met with in this world." Defoe has corrected some trifling inaccuracies in his first story, and was, therefore, willing to allow that it was an invention; yet he still maintained that there was not "any appearance of fiction in it," and that from the beginning to the end there was not a circumstance that had not its just allusion to some historical fact. All this, just so far as it was not intended to puzzle, was only another way of saying that Crusoe was but the shadow of Defoe. The proclamation of the allegory, as soon as Crusoe had become a popular favourite, was undoubtedly a fine stroke of business; and there was also a very real ground for saying that the life of the fictitious hero imaged that of his author, for while Defoe dashed off his immortal story he was wholly intent upon his art, the art which he had been practising during so many years, and which once for all reached its greatest perfection when it was exercised upon a subject pre-eminently familiar and applicable to the artist himself. Besides this, the *Serious Reflections* which are, for the most part, discourses on the supreme importance of honest dealing, were written with a purpose: there had been an outcry about false friends, and the writer wanted to convince his dupes that he was still to be trusted.

In the writings of Defoe, the appeal is evidently to a class of readers whose interest is rarely awakened by the highest literary productions; but it would be quite a mistake to regard *Robinson Crusoe* as nothing better than a mere collection of strange or diverting incidents. It is a work of the imagination perfect in its kind. We are told by Mr. Edm. Gosse, that it is an "amazing creation, the earliest great English novel, one of the most beautiful of the world's romances, the most thrilling boy's book ever written." The scenes of the story are shifted, and the events succeed each other, with a startling rapidity; yet they are parts of a whole compactly and cunningly arranged, and they all serve to illustrate the one central idea, that a human being endowed with ingenuity and courage may extricate himself in quite unexpected ways from the most unexpected difficulties. It is the doctrine of self-help that impresses itself upon our minds, as we watch this life-like struggle of a resolute man, whose hopes are suddenly shattered, and who has to do battle for life in a desolate place without comfort or counsel from his fellow-men. Defoe was attracted by his own tale, for it concerned him closely, and it helped to buoy him up with the hope that all would be well with him in spite of his blunders. He had often had to ask himself, how he might best escape from his troubles; and, as his biographers assure us, the possibility of exile in distant seas was at this time continually before him. He had given grave offence by writing in the interest of his benefactor Harley, and he had now (perhaps under threat of transportation) to prove his loyalty to the whigs by editing Jacobite journals and by pretending to co-operate as a Tory with Tories. To satisfy and to secure the confidence of both parties was almost beyond the power of any man. Defoe managed it after his own fashion, yet he knew that at any moment a single false step might work his ruin.

When Defoe began to write fiction, there was a general uncertainty as to its lawfulness, and the first question asked about any one of his interesting tales was whether it was true. The consequence was, that he deliberately set to work to impose upon his readers, and in too many cases, the circumstantial character of a narrative has been taken as the guarantee for its truth. Thus, his *Journal of the Plague* has been cited as an authority, and his *Memoirs of a Cavalier* have been accepted as genuine. That there might be no *appearance* of fiction—a point to be attended to by a novelist—— it was his custom to affirm that whatever he published was simply a record of fact, and he was readily believed, because in the art of realistic invention he was without a rival. For the reason given, he misused the art by issuing his own compositions as historical documents; and on quite another plea, he abused the art in his later biographies by vividly placing before the eyes of the public the most shameless examples of moral disorder. These are the common censures pronounced upon the writings of Defoe, but they do not apply to his greatest work. By its elaborate attention to minute and apparently insignificant details, *Robinson Crusoe* still retains its freshness. The often-repeated business-like statements have not yet lost their air of sincerity, and the numberless little explanations thrown in by the way are such as contribute to the general effect. For example, this is Crusoe's neat device for making his very mistakes attest his veracity. He has taken the greatest pains to make full enquiries about the places he passed through, while travelling in China, yet when narrating his adventures he does not feel sure that he can name or spell them correctly. The explanation of this is found in its own place. While fording a river, his horse stumbles and throws him; the leaves of his pocket-book are spoiled by the water, and the words written on them can never afterwards be read. The following bit of detail work is from the account of the voyage, after the picking up of two boat-loads of people from a French merchant-ship destroyed by fire:—

> We directed our course for the West Indies, steering away S. and S. by E., for about 20 days together, sometimes little or no wind at all, when we met with another subject for our humanity to work upon, almost as deplorable as that before. It was in the latitude of 27 degrees, 5 minutes north, on the 19th day of March, 1694-5, when we spied a sail, our course S.-E. and by S. We soon found it was a large vessel, and that she bore up to us and had lost her main-topmast, foremast and bowsprit. The weather was pretty good, wind at N. N.-W. a fresh gale, and we soon came to speak with her.

A popular writer must consult the popular taste; and these were the days when Steele had introduced sermons on the stage, and had become "the real founder of that sentimental comedy which exercised so pernicious an influence upon the progress of our dramatic literature." Accordingly, Defoe's entire work teems with reflections. This is how Crusoe reproves himself in his solitude for his choice of a wandering life.

> I have been, in all my circumstances, a *memento* to those who are touched with the general plague of mankind, whence, for aught I know, one-half of their miseries flow; I mean that of not being satisfied with the station wherein God and Nature hath placed them, for, not to look back upon my primitive condition, and the excellent advice of my father, the opposition to which was, as I may call it, my *original sin*, my subsequent mistakes of the same kind had been the means of my coming into this miserable condition. What business had I to leave a settled fortune, a well stocked plantation, improving and increasing, to turn supercargo to Guinea to fetch negroes. When patience and time would have so increased our stock at home, that we could have bought them at our own door from those whose business it was to fetch them?

Defoe tells us that, before publishing his *Tour through Great Britain*, he made seventeen large circuits and three general tours through the whole island; and it is only the precision of this statement, that makes it unreliable. But he certainly did not go to the Indies or to the Coasts of Africa. He was frequently sent to Scotland, and speaks plaintively of one of the "long, tedious and hazardous" journeys he made to Edinburgh. It may be, that in 1712 he went to Hanover as Harley's messenger; and in his younger days, when trading in hosiery, his import business may have taken him to Spain. In 1692, when he had to hide himself from his creditors, he was invited by some Spanish merchants to settle in Cadiz, but Providence placed "a secret aversion in his mind to quitting England upon any account." Defoe was no traveller, even though he was constantly moving from place to place upon secret errands. How then did he become the author of *Robinson Crusoe?* The book was published in 1719, when there was much curiosity about the risks and chances of life in far-away lands; and of this there is some evidence in the fact, that Crusoe, when writing of the East, refers his readers to "those journals and travels of Englishmen, of which many, I find, are published, and more promised every day." Defoe was always able to supply a demand, and a few years previously the town had been much excited by the reappearance of Alexander Selkirk, who, while sailing with Dampier's fleet in the Pacific, had been left by his own choice on the desolate island of Juan Fernandes, and had lived there alone for more than four years. Captain Dampier had himself suggested that there was the making of a tale in Selkirk's adventure, and Defoe acted upon the suggestion. He wrote quickly, for he had been writing at an astounding rate for nearly thirty years; and he was not unfamiliar with the ordinary incidents of a wild or sea-faring life, for in Newgate he had associated with pirates and highwaymen, and had made the most of his company. He was also able to boast, that in geography he had all the world at his fingers' ends, and could talk of the most distant countries with an inimitable exactness, so as to make his hearers believe that certainly he must have been born there. The materials for a tale of adventure may be drawn from many sources, and they may be collected even unconsciously during a period of many years; but the story which lives must be true to life, and that which was really of most service to the writer of *Robinson Crusoe* was his very intimate acquaintance with Daniel Defoe.

THE TEACHERS' ASSOCIATION OF BOMBAY.

The paper on "Teachers' Associations" from the pen of a very able lady member should leave no reasonable doubt in the mind of any one engaged in education as to the benefit to be derived from the Association. Miss Edge, of course, speaks with an eye to the future; but the importance of an institution cannot be properly understood except by reference to its possibilities or potentialities rather. The Association has only just begun, and at this stage of its career its methods are necessarily tentative; but the most important thing was for a certain number of earnest educationists to have been banded together to promote the great cause which they represent. More than this or that branch of work is the simple *power of union* and, without doubt, the Association will before long mark out its lines and settle down to a definite plan of operations.

At the same time *ideals* are of great value, and the writer of the paper referred to has done the Association a very real service by drawing attention to the fields of usefulness open to it as a body, and by indicating the ways by which these fair fields may be reached. Miss Edge's paper (giving the substance of the address she delivered at the inaugural Meeting of the Association) brings us a message of hope; and if any member should be in danger of despairing of the Association's future this paper bids him take fresh courage and believe he has seen the day of "small beginnings" which will eventually lead to great issues.

I have said that the steps hitherto taken by the Association have been only *tentative*, and this must be so considering that as an "educative" (I do not say "educational") agency it is practically a new institution on this side of India. To the best of my information former Associations concerned themselves with school-fees, Government Grants, etc., questions mainly pertaining to school management. The present movement aims at spreading the knowledge of the correct theory and practice of education and thus educating teachers to take an intelligent interest in their work—an interest which is bound to result in greater skill and efficiency in teaching. This is the *new element* in the present undertaking. But what are the practical means, we may be asked, by which we propose to stimulate the interest of the men and women engaged in teaching? It is not an easy question to answer. There are various types of schools in this large city. To confine ourselves to English teaching schools alone (and here again leaving out of account technical and industrial schools) we have what are technically called (1) the "English-teaching" schools for the natives of the country, and (2) the "European Schools" intended for and chiefly attended by pupils of European, or Indo-European descent—each type again has its three stages of Primary, Middle and High School. The divisions and sub-divisions differ widely from one another as regards the education, tastes, and needs of the teachers who man them; and it is no easy task to provide any facilities for reading, or any other advantages which will benefit all these classes of teachers in a fairly large measure at least. This object cannot be effected without many adjustments based on devices which experience alone can suggest, like the co-ordination of schools and such others. Evidently there is here need of much experiment.

The Association has up to now adopted *two* plans to secure the end above referred to. It prescribes for study books on Educational Science. The Managing Committee has decided to begin with more elementary works having regard rather to the general level of knowledge than to the attainments of individual members. Blakiston's "Teacher" has been thus prescribed and studied by a fairly large number. The study is supplemented by discussions on the topics treated of in the work. Of these there necessarily is a variety even in a rudimentary book like the one named. For a start, the subjects were discussed without any definite order; but the need of a more systematic mode of treatment has been felt, and it is now proposed to follow a certain order beginning with the Teaching of English in the Junior Classes of Schools from *two* points of view—(1) of the English Teacher teaching English children, and (2) of the Native Teacher teaching children whose vernacular is not English. Within this division again, the teaching of boys and of girls will have to be separated. This discussion will prepare the way for the consideration of the subject of Teaching English in High Schools.

Alongside of these papers and discussions, the Association is arranging for a course of educational lectures on subjects of interest and importance to teachers. On the educative influence of these it is needless to dwell. It goes without saying that the lecturers will be men thoroughly conversant with the subjects of their addresses.

The first of the series is to be delivered by the Rev. R. Scott, M.A., Professor of English Literature at the Wilson College, Bombay. The learned lecturer will undoubtedly be on quite familiar ground when speaking on "Literary Style"—the subject he has selected.

N. G. WELINKAR,
Hon. Secretary.

TEACHERS' ASSOCIATIONS.

I.—Introduction.

The question has been, and still is, often asked, "What is the good of Teachers' Associations?" It has been the experience of the writer, and perhaps that of others, that those who ask this and similar questions are by no means always those who are least in need but are often such as are most in need of Association with other teachers. Teachers' Associations would have been formed centuries ago and would now be old established institutions had teachers realised their needs in the past as some amongst them do to-day. Even now, however, there are many who ask the above question. Among this number the majority are, unfortunately, women teachers. These are fully as much in need of co-operation as men; it may be that their need is even greater. But signs are not wanting in England and more especially, perhaps, in America that women teachers are becoming more and more alive to the numerous and very great advantages to be derived by union and association in the great work to which they have been called.

II.—Objects.

In attempting a reply to the question "What's the good of Teachers' Associations" we may classify the objects in view somewhat as follows:—A. *Personal.* (*a*) The first question that may suggest itself to a good many of us, perhaps, when asked to join any Society is "What will be the benefit of such a Society to me *personally?*" It may be that we teachers owing to our comparative isolation and the intensely individual character of our work are especially liable to the temptation of looking at things from a merely personal standpoint. We are apt to consider the question of utility as being only or mainly subjective. We each are more or less the centre of a little world of our own, and the more interested and absorbed we are in this little world, the more difficult we find it, the more disinclined even we sometimes are, to take a broader outlook over the whole educational ground, and to realize that there are wider interests in which we shall do well to have our part and share, though these may touch our smaller concerns only indirectly or generally. To enable us to take this wider interest in education there is no means more effectual than a Teachers' Association.

By meeting together, by mutual sympathy and interchange of thought, with others actively engaged or interested in education, we shall soon find that a larger world is awaiting our entrance. Once entered the opportunities and facilities for mutual help and improvement cannot be estimated statistically, whether as to number or importance. Moreover, through such interchange of views teachers themselves and through them the public generally are provided with the means of forming sound judgments on educational matters. There can be no doubt, whatever, that not only the individual and collective interests of teachers, but the interests of education generally have suffered in the past incalculable loss owing to the lack of association among teachers. Other professions have had their Societies, trades have had their Guilds, artisans their Trades Unions, only teachers have been left or rather have left themselves in "solitary confinement" so to speak apart from others engaged in the same occupation, and that occupation one of the greatest that can engage the mind and heart of man.

In their case as in that of others the maxim holds good "Union is strength; isolation, weakness."

(*b*) Not only by meeting together, but by visiting one another's schools and instituting compositions between different methods in vogue in those schools, much can be done to correct and improve one's own methods of dealing with different subjects.

(*c*) Lectures again and the after discussion, on educational subjects open out a wide field for self and mutual improvement.

B.—*Education itself.*

Under this heading we need to consider—

First—In general—

(i) The Theory of education.

(ii) The necessity for the proper training of teachers of all grades.

(iii) The systems of education adopted in different countries, *e.g.*, England, America, France, Germany, etc.

(iv) Comparison of these with that carried out in India.

(v) The due adaptation of Western systems to Eastern, *i.e.*, Indian education.

Second—In detail—

(*a*) Co-ordination of schools of the same class, *e.g.*, Indo-European with Indo-European, Vernacular with Vernacular, etc., with respect to fees, salaries, etc.

(*b*) Formation of Committees for special purposes.

(*c*) Questions relating to the Government code and regulations.

(*d*) Examinations, *e.g.*, syllabuses, etc.

(*e*) Text-books, etc.

C.—*Teachers as a Body.*

All questions relating to the interest of teachers as a class, would come under this heading, *e.g.*—

(1) The formation of Educational Libraries.
(2) The opening of an education depôt for the inspection of school furniture, etc.
(3) The encouragement of teachers in making due provision for old age and sickness by such means as Life Assurances, old age pensions, etc.
(4) The establishment of a Registry for teachers.

The above list is by no means intended to be exhaustive, but all the objects enumerated are such as are now being actually realized by existing Teachers' Associations. For example, Registries for male and female teachers, respectively, are found so useful as to be almost indispensable now in England.

III.—Results.

In this connection it will be interesting and instructive to note the actual work accomplished by means of teachers' associations in England.

A.—The Teachers' Guild of Great Britain and Ireland was incorporated in 1885. It has about 30 Provincial Branches and 7 London centres. It represents teachers of all grades, but more especially those in Secondary Schools. A Teachers' Library, Reading Room, Museum and Registry have been opened and are extensively used. The Guild has secured free for its members legal and professional advice in case of difficulties arising in the practice of their profession. A book is published annually giving Holiday Resorts and recommended addresses which has been found of the greatest help to teachers needing rest and change at as moderate a cost as possible. Holiday courses have been arranged for the study of languages. Lectures, meetings and social gatherings are held in connection with each Branch, and last but not least advice and practical help are given relative to Life Insurances and Investments of money, etc. For members desiring to insure their lives or invest money the Guild has been able to obtain specially favourable terms from certain well-established Companies.

B.—The National Union of Teachers, which represents mainly the teachers of Primary Schools, is an older Association having been founded in 1870. It is still however young in years, and shows all the vigour and utility of a healthy constitution. It is founded on the principle to which reference has already been made. Standing alone the teacher is weak; weak in pocket, position, power. But combined and united teachers are potent. The Union incorporates 19 District Unions, 430 Local Associations and about 39,000 members. It is highly organized. The Executive of the Union, the Committee of the Benevolent Fund, the Council of the Orphanage and Orphan Fund, the General Board of Provident Societies and the Standing Committees for (1) Primary Education. (2) Technical or Secondary Education. (3) Finance, Press and General Purposes. (4) Legal assistance and sustentation. (5) Parliamentary Action. (6) Superannuation. (7) Internal Organization, suggest the policy of the Union, execute the decisions of Conference and administer the Union's funds.

The enormous work of the Central Office is conducted by a Secretary, 4 Assistant Secretaries and a Law Official together with a staff of senior and junior clerks. The Union is served in the Law Courts by 3 Standing Counsel, a General Solicitor, and some 350 Local Solicitors, all of high repute. The Organ of the Union is a very powerful one in the educational press. The Union is influential. It is a recognized and approved medium of communication between the profession, and the different educational authorities. Two of its members represent the cause of education in Parliament. Its influence is two-fold, first and foremost it strives for the amendment of national education, and secondly it acts for the advancement and protection of the teacher.

It assists the educator in every way possible, and it is also an organized external force which makes for improvement in the ideals, plans and administration of public education all round. Many reforms, great and small have been due to the initiative and persistent advocacy of the N. U. T. The Conferences and meetings of the Union promote reforms in pedagogic plans and ideals by affording opportunities for the professional discussion of school method, and for inspection of the best and newest books and apparatus for schools. These gatherings also enable officials of the Education Department.

Private educationists to confer with school teachers on subjects of common interest and importance. By these frequent meetings and conferences too the N. U. T. has afforded to its members opportunities for professional counsel, social enjoyment, and the formation of friendships, and the acquisition of experience in the conduct of public business and affairs. "All that the Union does for its members who are men it does for women also." Both of these Associations are thus engaged in a most useful, necessary and profitable work, and this not only from the point of view of the teacher individually and collectively, but also from that of education itself.

IV.—Conclusion.

Education is in its earlier stages in India, and is at present somewhat apt to follow too closely and blindly the lines laid down under very different conditions and circumstances in England. A free interchange of opinion on this and other matters could not fail to be productive of good. Again, teachers can always meet on an educational platform, however strayed they may be on questions of religion and politics. They are alike engaged in one of the noblest kinds of work entrusted to men and women that of training the young for time and eternity. This is a work that should engage the best strength and energy of the body, mind and soul of every teacher. The question then for all is "How can this work best be done," I know of no means better adopted to reply to this enquiry than a Teachers' Association.

Not enjoyment and not sorrow
Is our destined end or way;
But to act that each to-morrow
Finds us farther than to-day.

A. E. EDGE.

THE STUDY OF THE VERNACULARS.

(*Contributed.*)

"Grant us to have a right judgment in all things." Never were we more strongly reminded of the need for this prayer than when listening to the debate, which took place in the Senate of the University, a few days ago, on the introduction of the Vernaculars of this presidency into the University curriculum. That those who have kept this subject well before the Senate all these years are men many of whom have given unmistakeable evidence of a sincere interest in the moral and intellectual progress of their country, no one is more ready to admit than ourselves; and we further hold that the steady agitation, which has been kept up in the University and the press in favour of the Vernaculars, is calculated to do nothing but good, by calling public attention to the claims of a subject of vast educational importance. Having premised this, and having thus disavowed every intention of taking up an unfriendly attitude towards the Vernaculars, or of seeking to minimise the importance of their study, we now propose to make a dispassionate examination of the conditions which surround the problem of instruction in the Vernaculars. Such an examination, however we may regard the decision arrived at in the Senate the other evening, the subject certainly did not receive at the hands of those who took part in that interesting debate.

The question is a large one and has many sides. With a view to discuss it somewhat in detail, it is proposed to deal with it in three papers, the scope of which will appear from the following headings :—

(I) The Study of the Vernaculars in Schools.

(II) The Claims of the Vernaculars to form part of collegiate instruction.

(III) Some inferences bearing on the last mentioned subject derivable from the growth of the Vernaculars, particularly Marathi.

I.—THE STUDY OF THE VERNACULARS IN THE SCHOOLS.

Regarding the merits of this question, there can be little serious difference of opinion between thinking men. Education (whatever else it is or is not) is undoubtedly the training of a person to be a useful member of the society in which he finds himself placed. Now, it must be evident to any intelligent man who will bestow a little reflection on this subject that a person who does not possess a reasonable familiarity with the language and literature of the district he lives in, and who is not able to make easy use of its Vernacular as a vehicle of thought, has his chances of usefulness greatly weakened on account of this deficiency, however well-educated and well-informed he may be in other respects. No doubt, this is an elementary part of the equipment of an educated man ; but it is a very essential part nevertheless. And if the view is sound that the School (and not the University) is the place where a boy ought to get all the knowledge that is necessary to start him on the career of citizenship, then we shall expect the *schools* to impart this knowledge which is so essential in order to enable a person to get in touch with the mind of the people among whom he lives and moves, and whose good it is his first duty as an educated man to promote. No man can ever hope to know the needs, feelings, and aspirations of men whose language he does not perfectly understand, and with the thoughts of whose great writers he has not acquired at least a respectable familiarity. How then can he hope to elevate the moral and intellectual ideals of those to whom in feeling and sentiment he is a perfect stranger ?

And let it be noticed that the claim here advanced for the adequate teaching of the Vernaculars in the School does not by any means rest on the intrinsic excellence of the literature of these languages. Be that literature ever so large or meagre, inspiring or barren, the educated man is bound to acquaint himself with it as a necessity of his 'calling,' independently of the merits or demerits of that literature. It is the best his countrymen have produced, and he must know *it*, if he hopes to know *them*. It is not a matter of taste or choice ; it is an absolute necessity from which there is no escape.

Such being the imperative need of instruction in the Vernaculars in our Schools, we next ask what is being done there to supply this need ? And what a sad state of things is here disclosed ! We may go to any English-Teaching School ; and where the Vernacular is at all taught, we will at once notice that something is radically wrong in the teaching. What are called the Anglo-Vernacular Schools are required by the Education Code to devote a certain portion of the teaching time to the Vernaculars. So they do indeed ; but let us step into a Vernacular Class and watch the lesson as it progress. The class is reading the Departmental Marathi book, it may be the 5th or the 6th Reader. A short passage (say, a dozen lines) is hurriedly read by the pupil ; the meanings of the words are asked, of the simplest wit the most difficult. Then a sentence is chosen for parsing and *every* word parsed, a number of boys bungling ove the simplest words. The reading and the explanation are completely mechanical, and the class gives no mor evidence of entering into the spirit of the reading lesson than if it was a foreign classic which was being unfolded If it is poetry the boys are engaged on, *two* lines ar usually read; the prose order of the verses is next given—then follows the 'dissolution' of the compound words—then the meanings of individual words—then the explanation of the lines, and so to the next *two* lines, and the same weary round over and over again. Any enjoyment of the portion read is out of the question under such a system.

Turn we now to the High Schools for native boys and girls. In most of them the Vernaculars as a branch of instruction are either simply non-existent, or exist on sufferance as an 'optional' subject! A few schools, however, (like the Free General Assembly's Institution) maintain the Vernaculars as a compulsory subject in all the classes of the High School; but here it is the same old story over again. The Vernacular Classes are very thinly attended, to begin with; as the boys come to know pretty early in their High School career that the Vernacular is not compulsory at the Matriculation, and therefore take the classes according to their expediency! The same fatal apathy has in many cases overtaken the teacher. The study is dry as dust. A difficult poet like Moropant or Vaman is being waded through phrase by phrase and word by word. (Never was Virgil or Horace more laboriously construed by the dullest student that ever passed through the portals of the University!) Or there is translation of a Classical Marathi prose passage into English, an exceedingly slow and tedious process of word for word, or phrase for phrase rendering; and altogether a boy's year's reading of Marathi in School (and he reads next to nothing at home) is say about 500 lines of poetry and between 50 and 100 pages of prose.

It is an indisputable fact that there is considerably more English-reading done at school than Marathi or Gujarathi. Now nothing could be more deplorable when we reflect that it is in the pupil's native language (which he is supposed, under present arrangements, to have been taught for three or four years before he began the study of English) that this wonderfully extensive range of reading is displayed! Think of a Harrow or a Rugby boy, in the 6th Form, doing no more reading of English in a whole year than 300 lines of Milton and 75 pages of Ivanhoe!

It is this great defect in our school system which must be first remedied if the Vernaculars are to receive the recognition which is theirs by right of their being the languages of the people of the country. If Marathi or Gujarathi were taught from the beginning of the school course as the living mother-tongue of the pupil, and if both master and pupil threw more heart into its study, any *two* or *three* of the seventeen poems which the Hon'ble Mr. Justice Ranade names in his "Note on the growth of Marathi Literature" could be easily taught to an advanced school class in a year's time; and, in addition, *two* or *three* of the Forty-three prose-works recommended by him in the same paper. A native boy who has completed his school course should be in a position to use Marathi or Gujarathi with perfect correctness, and even a certain degree of facility for all purposes of literary expression and social intercourse. This, certainly, is asking neither more nor less than that an English boy, when he has finished his school course, should be able to write and speak English with perfect correctness and even some elegance.

But how is this desirable change to be effected? The remedy lies chiefly with the Government and the managers of private schools. Might not the Educational Department insist upon a higher standard of proficiency in the Vernaculars than has been hitherto demanded or attained? Government and the proprietors of private schools set the tone of school education, and if they are induced to take a more hearty interest in the improvement and extension of Vernacular instruction, a great and much-needed reform is sure to be effected.

The University can also materially help in the same direction. In the High school all studies are regulated with a view to the requirements of the Entrance (Matriculation) Examination of the University. By not enforcing a Vernacular test at the Matriculation, the University appears to discountenance the teaching of the Vernacular in the High Schools and to endorse the false and highly mischievous opinion that the study of these languages is a mere superfluity in school education. Surely this must be righted. The Entrance (Matriculation) Examination is the natural termination of the school course; and the University, before certifying a person to have completed his school course, has a perfect right to satisfy itself (and *should* satisfy itself) that the candidate has mastered his Vernacular sufficiently well to be able to use it in the intercourse of life without the smallest embarrassment. Why not demand an essay in Marathi or Gujarathi and a correct and idiomatic translation of an English passage into one of these languages? We would go further and add to this requirement a certain acquaintance with the literature of the Vernacular. (Notice that at the London Matriculation a candidate is expected to possess an elementary knowledge of the history of the English language and literature.)

Such a requirement as that indicated above, as Principal Hathornthwaite observed in the course of the debate in the Senate, stands on an entirely different footing from the requirement of the knowledge of the Vernaculars at the Higher University Examinations.

The Matriculation is the ultimate test of the subjects taught at school, and a person may wish to see introduced a compulsory test in the Vernaculars at that examination without being thereby in consistency pledged to advocate the introduction of that study into the college curriculum. You have a perfect right to demand the adequate teaching of your Vernaculars in your schools. By all means insist upon proof of such teaching by requiring the student who professes to have completed his school course to satisfy you that he possesses a sufficiently good knowledge of one of these languages. When, however, you ask that the Vernacular should be a subject of test at the higher examinations, the position is altered. You are putting forward a fresh claim, a claim which must evidently rest on grounds different from those adduced in this paper. These grounds we shall examine in another paper. We conclude this one by remarking that if the earnest advocacy of the Hon'ble Mr. Justice Ranade and those of his way of thinking awakens the managers of schools and the Education Department to the great importance of the question of the Vernaculars as it touches school education, a great step forward will have been taken and the recent debate in the Senate will certainly not have proved barren of results.

THE TRAINING OF WOMEN TEACHERS IN ENGLAND.

It has long been recognised that for teachers in primary schools professional training is not only an advantage but a necessity. All the teachers in Board Schools must now first pass through a definite course of preparation and hold a teaching certificate under Government. But there is still only a slowly growing sense of the necessity of the extension of the training plan to teachers in secondary schools. It is a commonplace to say that the art of imparting knowledge is a thing quite apart from mere personal grasp of principles and facts. Yet how many teachers are there who are engaged to work with young children without any regard to the development of their minds, their varying capabilities, their methods of thought.

Among women, however, the idea of the importance of a scheme of preparation for secondary teaching has of late years been gaining stronger hold. There is a constantly increasing number of women who train for their profession, and in many cases, especially among the larger public schools, those who control the appointments show preference for trained teachers. There are even some head mistresses who refuse all but those who hold some recognised teacher's diploma.

These diplomas are granted by various bodies to intending teachers, men and women, on the result of examination. The most important are the certificates granted by the Universities of Cambridge and London and by the College of Preceptors. The lines upon which these examinations are conducted are the same in the main, but there are certain important differences. For instance, no candidate can be admitted at London unless previously a graduate, while Cambridge only requires some adequate test of general education. There are now numerous institutions which lay themselves out for the training of women on the lines of these examinations. Most of the larger women's colleges have a department devoted to this branch, while others, such as the Maria Grey Institute, were established solely for the purpose.

The system must, of course, vary in the different colleges, but in the main the work is carried out on the same lines. I can only attempt to give an outline of the whole. The training consists of two parts: (1) the study of the theory and art of teaching; (2) the practical application. For the purposes of efficient practice arrangements are made with surrounding schools by which a certain number of classes per week shall be taken by students from the college. These schools are often of very varied character, Board Schools, middle class, private and high schools being sometimes included, and thus wide experience is gained. In more than one case, however, the arrangement is different, the training college having a school established in connection with it, in which the students exercise their powers. At first sight it might seem difficult to induce head mistresses to subject their flock to the experiments of novices. But this does not seem to be the case. In the first place, any disadvantages resulting from the introduction of experienced beginners are more than obviated by the freshness of method and thought, the eagerness to excel which the outsiders bring to their work. They do not regard their lessons as a mere task to be drudged through, but as an opportunity for learning a profession in which by care and thought they can bring themselves to the front rank.

In the second place, the novices are not left to experiment at will, but are subjected to constant supervision. As a rule the head of the training college is present while they are giving their lessons. The whole management of the class is in their hands, except occasionally, in the case of large and troublesome board school classes where the ordinary mistress may remain. But at the end of their effort they must undergo a process of criticism with regard to both method and description.

Every student takes a certain number of such classes every week. They are not very many, varying from two to five lessons, of half an hour each. Much time has to be given to the study of theory, and a very careful planning of each lesson is expected. To require too much practical teaching would be to produce scanted work and much of the opportunity of learning system would be lost. The teacher is allowed to take no notes with her. She is to *teach*, not to *lecture*, and the distinction between the two is clearly drawn in the theory classes. But though notes of reference are prohibited during the lesson this does not mean that none are to be drawn up. On the contrary, the whole must be carefully planned out and the subject arranged under heads, so that all the most important aspects may be remembered and brought out. After the class the student often adds notes as to the progress of the lesson itself, judging the effect produced, considering whether discipline was maintained, and showing that she has done her best to obtain an individual knowledge of the units in the class. These notes are subjected to criticism after the lesson, and mistakes of method are pointed out. Constant use of the black-board is encouraged, and the introduction of pictures and all such illustration as will bring home the facts definitely to the children. At the same time great care must be shown to develop the child's reasoning faculty. Nothing—not the commonest rule in arithmetic—must be taught by rote. The guiding principle upon which these young teachers are brought up is first to make clear the reason, so that then the fact may be more firmly grasped.

But outside their practical experience the training students are made to think out problems of school discipline. Questions are discussed in council, and essays written upon the best way of teaching certain subjects, upon the composite uses of different branches of learning, and the special aims which the teacher must set before herself in each. The difficult matter of punishment must also be discussed, and expedients devised for supposed contingencies. Sometimes they draw up plans for school organization, regulating time-tables and distributing mistresses with the whole care of an imaginary school upon their shoulders.

In addition to the study of modern theories of education the examiners of intending teachers expect an outline of the whole history of education, and certain educational works must be studied in detail.

Finally, certain outlying subjects form part of the curriculum. Insight into all shades of mind and character is necessary to the perfect teacher, and to this the students are assisted by a study of the elements of psychology, while the power of clear-headed reasoning is trained by an introduction to logic. Such assistances to oral teaching as voice-production and elocution are often included.

The training of secondary teachers has scarcely been long enough in use for us to judge as to results, nor perhaps for the evolution of a wholly satisfactory system. That the plan is good, intrinsically, seems clear when we consider how important the profession is socially and how incapable are many of those who enter it. There is not, however, an universal opinion that the best or even a really good system has yet been established. Certain good results the present system must produce. The teacher will be able to set to work at once systematically and not too mistrustfully. Many of the mistakes, inevitable to beginners, will now be known and avoided. To a certain knowledge of discipline she will have added a very necessary power—that of realising the perfect blank in the minds of her audience as to the subject in hand, will have learnt not to assume previous knowledge, and to appreciate difficulties even though those of her own childhood are forgotten. Thus she should be capable, from the beginning, of imparting a full definite idea, instead of one vague and imperfect. At the same time there are drawbacks not easy at once to obviate. Should the head of a training college be too rigid in her opinions there is the danger that a stereotyped rule of teaching may be imposed on all. And the danger, felt by some, is lest constant criticism should produce a shrinking from striking out individual paths. Others, not agreeing with the theories and principles upon which they are trained, are cumbered with the sense of loss of time, and feel that they will only gain their freedom to fling behind them much that they have been taught. Yet even these, and the number who can safely make this determination are in the minority, will at least have learnt what must not be done, and, knowing where the rocks and quicksands lie, will steer more confidently into the smooth waters of success.

THE SCHOOL SYSTEM OF GERMANY.

The entire school system of Germany bears the stamp of State influence, of which compulsory education is the most noteworthy evidence. It was during the Thirty Years' War that the city of Weimar introduced the innovation. Gotha, Brunswick, Würtemberg, and Prussia followed in succession before 1716. It was devised chiefly against the ignorance and indifference of parents, and in no way as a restriction upon liberty.

It is only lately that free education has followed as a corollary of the compulsory system, and by its introduction an important advance has been made, for all appointments proceed from the State, and both the organization and the supervision of the school system are controlled by the State. It is admitted that State supervision has introduced some uniformity and formalism—factors detrimental to educational progress. Yet, on the other hand, without Government control, the schools in the majority of the German States would be dominated by an ultramontanism opposed to all enlightenment, or by a rigid and intolerant orthodoxy. Thus the State is a barrier against Church encroachment.

The love of individual freedom especially prominent in the department of education, and peculiar to the Germanic race, prevents a resort to arbitrary measures on the part of the State. Again, the independence of the several States of the Empire in matters of education furnishes an additional guarantee that there will be no arbitrary exercise of State power. This independence stimulates an active and healthy competition among the different members of the confederation, and serves to introduce a valuable variety into the school system. It is true that once and again efforts have been made to secure uniformity of system, but several States, notably Bavaria and Würtemberg, by introducing certain timely reforms of their own, forestalled Prussia and, according to the general belief, averted a serious danger.

The *Volkschule* (common school), like the secondary school, was a creation of the State and not of the Church, and its foundation was due to compulsory education. But Church influence has always been very powerful in that department. Baden excepted, the common schools are organized according to creed, and supervisors are recruited from the clerical ranks. In Würtemberg and other States the demand is now being made that the superintendence of common schools be intrusted to competent school-masters. A plan introduced by Prussia in 1872, and clearly designed to convert the school into a clerical institution, was swept away by a storm of opposition, and State control was again victorious.

Compulsory education filled the schools with pupils; teachers, however, were lacking, and the subject-matter and method of instruction were overlooked.

The question of adequate remuneration for teachers was first taken up about the beginning of the eighteenth century. The first German seminary for common-school teachers was founded in 1698 at Gotha. Prussia followed in 1735. To-day, the maintenance of these institutions, which are constantly increasing in number, has become one of the principal functions of the State; and the high standard of excellence of the present body of instructors is undoubtedly due to them. Adequate remuneration is still much to be desired, except in a few isolated cases in large cities. The smaller States of Germany give ampler remuneration to their teachers than Prussia. The situation in East Prussia where the agrarian and feudal principles which still prevail are so detrimental to progress, subjects the individual teacher to constant care and worry. Besides, it has created such wide-spread dissatisfaction among the entire professions, that higher educational purposes must naturally be retarded. Yet, even here, the conditions are becoming more favorable, surely, if slowly.

The first to advocate the higher culture on the part of teachers which is now considered necessary was Professor Diesterweg, the Director of a "Teachers' Seminary" in Prussia. He championed the cause of the common-school teachers during the fourth decade of the present century. His efforts were combated by the reactionary party during the reign of Fredk. Wm. IV., and attempts were made to reduce the educational standard of the teachers to the lowest possible grade.

No material advance has since been made. To-day, however, the question of a higher educational standard for common-school teachers is being widely discussed. There is still some difference of opinion as to requirements and methods. Some regard familiarity with one foreign language as an indispensable qualification; others, attendance at a preparatory school; and a few even insist upon a preparatory course at a university. Holiday courses, as in America, have found favour with many teachers. The movement is conducted by the teachers themselves, which is a guarantee of its ultimate success.

The educational requirements of teachers are closely related to the subjects and methods of instruction. Fichte and Wilhelm von Humboldt were enthusiastic admirers of the great Swiss educator, to whom many young Prussians were sent to acquire his methods. The common schools of Prussia were organized upon the Pestalozzian system, and became the models for those of the other German States. They are characterized by formalism. Too much stress is laid upon the method itself, which after all is but the means to an end. But it is well to remember that a certain amount of formalism is indispensable to the multitude, who are so frequently lacking in independent judgment. Yet despite this rigidity of method, men of ability will still be enabled to develop their ideas according to their individual convictions.

Pestalozzi has been acknowledged in Germany as a master of method. From him arithmetic and observation-study received their first great impulse. The social element in Pestalozzi, which revealed itself in his advocacy of a general popular training, has only recently been recognized. It is now being perceived that one of the principal defects is its one-sided intellectual attitude. Too much stress is laid upon reading and writing, and orthography. The elementary instruction should be of a more practical nature; and the development of the reasoning powers should be more strongly accentuated. Manual training is now recognized as an important factor; and the introduction of this element into the schools is rapidly progressing. At Leipsic there is now a special seminary for manual training, and a society aiming at the extension of this branch of education has recently sprung into existence.

The common schools have lost their religious character, once so pronounced. Besides subjects of general importance, such as German, drawing, history, and civics, both agriculture and special technical subjects are now taught. Instruction in house-keeping now constitutes a special branch of female education in the progressive schools.

With reference to the moral element, it has been said of the German schools that they instruct too much, and impart too little moral training. This censure is unmerited. The school, as such, undoubtedly tends to develop public spirit; and it teaches the individual to subordinate his welfare to that of the commonwealth. Good schooling is inseparable from moral training; and there are many who differ from those who would impress their own particular views of morality upon the mind of youth. It is true that half-grown youths, say from fourteen to eighteen years, whose schooling has frequently been inefficient, suffer from a lack of moral training. In this respect, the progressive course which has been introduced into the common schools will be fruitful of good results. There is much still undeveloped, still unperfected, a condition which is not derogatory, but creditable, showing that there is no stagnation but steady progress.

This cannot be said of the secondary schools, of which the present condition may be said to be critical. Instead of uniting in the pursuit of a common goal, the forces here are split into factions. The *Gymnasium* was established before the common school, and assumed its modern form during the humanistic sixteenth century. During the seventeenth and far into the eighteenth century, the *Gymnasium* perceptibly declined. It revived, however, under such intellectual leaders as Herder, Winckelmann, Goethe, Schiller, Lessing, and William von Humboldt. The last, in his capacity as Prussian Minister of Culture, introduced the spirit of modern humanism into the *Gymnasium*. The study of Latin and Greek was still considered of primary importance—an importance enhanced by reason of the stress now laid upon the æsthetic and historical bearing of these languages. At the same time the physical sciences demanded an ever-wider consideration in the curriculum. The constant extension of the realistic sciences, combined with the already existing demands of the classics, tended to an overcrowding of the curriculum.

As early as the third decade of the present century school-masters and physicians issued warnings against the dangers which might arise from a further extension of study; the matter is still under discussion. Many of these complaints are exaggerated, and savour of effeminacy. One unfortunate result of concessions made by school officials has been to force the classics further and further into the background, and to shorten considerably the time devoted to their study. Owing to the existence of special schools (*Realschulen*) devoted to the pursuit of the natural sciences this abridgment of the classics in the *Gymnasium* was perhaps unnecessary.

These *Realschulen* are more recent institutions than the *Gymnasien*. They were established at the beginning of the eighteenth century, *i. e.*, at a time when the practical spirit of modern life began to manifest its presence in every department of thought and action. For a long time the *Realschulen* had the character of technical schools; and the propagation of general culture was regarded as of but secondary importance. Indeed, the true mission of these schools was not recognized until about the second decade of the present century. As understood to-day their mission consists in preparing the students for an active participation in all the practical affairs of life; for which purpose the study of the physical sciences, modern languages, and mathematics is deemed of special importance. On this account the study of Latin as a part of the curriculum, was left entirely to the discretion of the school. As a knowledge of Latin, however, is considered a necessary qualification to civil service in Prussia, most of the *Realschulen* instituted a Latin course. As this was done solely as a matter of expediency, the instruction thus given was naturally of a somewhat desultory character.

(*To be continued.*)

COLLEGE CORRESPONDENCE.

DECCAN COLLEGE.

The College opened on June 13th. There are 159 students in attendance, of whom 7 are reading for the M. A. degree, 68 for the B. A. degree, 31 for the Intermediate and 53 for the Previous examinations.

The following cricket matches have been played: College (37 and 62 for 5 wickets) *v.* Bishop's High School (45 and 27); College (57) *v.* Furgusson College (52); College (29) *v.* Poona Hindoos (154).

A Society has been started under the title of the Deccan College Essay Society, with the object of "hearing and discussing papers on Indian history or Indian affairs." There are at present 10 members, the President being Prof. Fraser. The first meeting of the Society was held on June 25th, when the President read a paper on the study of history, which was followed by a brief discussion.

KOLHAPUR.

Koḷhāpur has been singularly free from plague. There was, therefore, no need to relax the rules regarding attendance at College. The College suffers from want of a suitable building for Moffussil students to live in. The old quarters behind the beautiful College building were very convenient, but the Darbar has not yet sanctioned the rebuilding of the same or formed any project for a new building on a different site altogether. A private house has been engaged for the benefit of outside students, but the 'Hostel,' as it is called for brevity's sake, is nearly a mile from the College, and will be particularly inconvenient in the rainy season. This fact seems to be mainly responsible for the fall in numbers this term. Poona and Bombay have become free from plague now, and those that flocked to us as a safe asylum have gone back. The numbers on the College roll at the beginning of this term are 60, P. E. class, and 21 Intermediate class instead of 73 and 24 respectively for the last term.

The Rajaram High School and the Private English School have begun their work as usual. Sir William Lee Warner's excellent little book *The Citizen of India*, has been introduced as a text-book for the 6th standard in the former. Irving's Sketch-book was read for the first term, and under ordinary circumstances it would have been continued till the end of the year; but it was found too hard for the boys. As Sir W. Lee Warner's very suitable book had appeared in the field, no time was lost in substituting it for the Sketch-book. I am sure the book will be pleasant reading for the boys, and the fund of information on topics of common interest that it supplies will be very valuable to the students.

According to long-established practice, the Poona Native Institution was visited by different officers during the early part of the season. In the list, we find the names of Messrs. J. W. P. Muir-Mackenzie, M. R. Ac., acting Chief Secretary to Government; A. B. Forde, acting Survey and Settlement Commissioner, and R. A. Lamb, the Collector of Poona. All the visitors speak in favour of the Institution though the numerical strength temporarily failed owing

EDUCATIONAL NOTES.

In the Poona Centre, the Bishop's High School under Mr. Macnee is said to have made a very good figure in the 1st and 2nd Grade Examinations of the Bombay School of Art.

Government High and Middle School Scholarship Examinations and the Public Service Certificate Examination come off during the next month (September).

The Hon'ble Mr. E. Giles and Mr. R. D. Prior are said to have resolved to visit Dhulia and other places after September next.

Subordinate Judges are transferred by Government from one station to another, and it will be a great blessing if the present popular Director applies the rule to the Deputy and Assistant Deputy Inspectors.

The results of the Mathematical Tripos are announced. The Senior Wrangler is Mr. R. W. Hudson, St. John's College, London, Mr. J. F. Cameron, Grenville and Caius, and Mr. J. H. Jeans, Trinity. Among the women competitors Miss Cave-Brown-Cave is equal with the fifth Wrangler.

There were two academic heroes in Cambridge on Wednesday, June 14th, one the Senior Wrangler of course, and the other Jeans of Trinity College, who has won what we believe an unprecedented distinction in taking a Wranglership in his second year. To be in these circumstances bracketed equal with second is an achievement which he may well be prouder of than of the Senior Wranglership which he would have been certain to gain in his third year. Mr. Jeans is not yet twenty-one. He is of Scotch parentage, but was born in Birkdale, Lancashire, and educated at Merchant Taylor's School, London. He is the son of a well-known London journalist, Mr. W. T. Jeans of *The Globe*.

Do Wranglerships run in families? It is a matter of common knowledge that a taste for the Higher Mathematics so runs. Take the list of the 14th. Three out of the first six placed are, so to speak, Mathematicians by heredity. There is Miss Cave-Brown-Cave, the daughter of the Adjutant-General of the Army, who ranks "equal to the fifth." The Senior Wrangler is the son of a third Wrangler, of nearly forty years ago, whilst the father of the fifth Wrangler, Mr. Fletcher Moulton, was himself Senior Wrangler.

Mr. Pestonji Sorabji Patuck is bracketed 16th Wrangler in the Cambridge Mathematical Tripos. He received his education at Elphinstone College, of which he was successively Scholar and Fellow, and he took a 1st class in the B. A. Examination of Bombay University, winning the Duke of Edinburgh Fellowship and Sir James Fergusson Scholarship, in 1892, and a 2nd class in mathematics in the M. A. Examination in 1894. In 1895 he proceeded to Cambridge as a Tátá Scholar, and in the following year was elected to a Foundation Scholarship at St. John's College. He has already passed into the Indian Civil Service, having taken good place in last year's list. He is the second Parsi who has thus distinguished himself within the last few years, the other being Mr. Ardeshir Kaikhoshru Cámá, B.A., I.C.S., now Assistant Collector of Bijapur, who took his degree from Elphinstone College in the 1st class of the Bombay B. A. List in 1891, and was subsequently Scholar of St. John's College, Cambridge, and 21st Wrangler.

The award of the Hertford Scholarship at Oxford affords nearly as interesting a study in heredity as that of the Senior Wranglerships at Cambridge. Of the two who are "proxime accessit" for this scholarship, one is Mr. R. Asquith, Scholar of Balliol, whose father, it need hardly be said, is the ex-Home Secretary, and an ex-Balliol and ex-Craven Scholar; while the father of the other "proxime accessit" is Mr. Arthur Butler, an old Ireland Scholar, and now Fellow of Oriel College.

In May last the Rev. Dr. Caird resigned his office as Principal of Glasgow University, which he has held for a quarter of a century. He was born at Greenock in 1820, and graduated M. A. in Glasgow University in 1845. His student career was most distinguished and, almost immediately after being licensed, he stepped into the front rank as a preacher. His charming eloquence, and the persuasive power of his oratory were universally acknowledged.

From 1873 when he was appointed Principal of Glasgow University, he, together with his brother Edward, late

Professor of Moral Philosophy at Gilmorehill, and now Master of Balliol, wielded an immense influence over numbers of the ablest students who have passed through Glasgow University. Of his few published works, the principal are The Religion of Common Life, preached before the Queen and published by her request, half a dozen eloquent sermons, and his Introduction to the Philosophy of Religion. Lord Kelvin was mentioned as a probable successor, but the appointment has now been given to the Rev. Dr. Story, Professor of Biblical Criticism in the University of Glasgow.

Dr. Marpmann of Leipsic has recently published the results of the microscopical examination of sixty-seven samples of ink used in schools. Most of them were gall inks, and contained saprophytes, bacteria and micrococci. Nigrosin ink, taken from a freshly opened bottle, was found to contain both saprophytes and bacteria. Red and blue inks also yielded numerous bacteria. In two instances Dr. Marpmann succeeded in cultivating from nigrosin ink a bacillus which proved fatal to mice within four days. The presence of these pathogenic organisms in ink accounts for the nasty sores which sometimes result from the scratch of a pen.

A correspondent of the London *Times* gives us some astonishing figures with reference to the way secondary schools in England are staffed or rather understaffed. In boys' schools on the whole only 55 per cent. of the resident staff are graduates, and the proportion among the visiting masters is very much less; but the figures sink to 29·2 per cent. in the girls' schools, 25·8 per cent. in the mixed. These figures must compare very unfavourably with French and German statistics on the same subject. Further analysis reveals that even in the pick of the schools, such as the companies' and endowed, the percentage rises only to 68 and 64. In the girls' subscription schools it rises to 100 per cent., but then only three schools are concerned.

It must be remembered that it is not the drawing, writing, and dancing masters who pull down the average, but those who have entered the teaching profession with no outward and visible qualification, for the most part, either of aptitude to teach or of proficiency in knowledge. The possession of the Cambridge Local certificate or even that of the Joint Oxford Cambridge Board, can hardly rank as an adequate qualification. But the climax of significance is reached when we find 32 per cent. of the boys' schools without a single man or woman graduate in them, 73·8 of the girls' schools, and 81·3 of the mixed—the average for all the schools being 61·6 per cent.

There must certainly be something decidedly rotten in the State of Denmark. On the one hand we hear daily of Wranglers vainly seeking a pedagogic situation, and men with second class honour degrees seriously discouraged from entering the teaching profession as though the whole *metier* were choked to overflowing. On the other hand, we have figures that prove conclusively, even after putting aside girls' and mixed schools, that only a little more than half the teachers in our secondary schools possess University qualifications. What is the reason of it? Are the unskilled teachers underselling the skilled, and those who ought to know complacently taking the cheaper article? Whatever the truth is, the figures are absolutely astounding, and are the most eloquent argument that has yet been produced in favour of the registration of teachers, for which educational experts have long been clamouring. Only they have begun at the wrong end in demanding that a person should have a training in pedagogics before entering a school. They should rather go a step farther back, and before asking if the teacher is able to teach, should put the preliminary question whether he has been already sufficiently taught.

UNIVERSITY PRESS CAMBRIDGE,
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Amongst the various pressing educational questions, none is at this moment of greater interest than the problem of the training and preparation of Teachers. In the field of Secondary Education the subject, too long deferred, is now ripe for practical consideration. As regards Primary Education, systematic methods of training have during the past half century been gradually developed. But, even here, the time has come for the acceptance of higher standards in the preparation of teachers. The recognition of University training, examinations and degrees by the Education Department, and the direct relations thus established between the Universities and Primary Schools, the increased employment of graduates in Schools and Training Colleges, and the so-called "Day" Training College system, are in this connection facts of much significance. The need of wider knowledge and freer methods of study is enforced in direct terms by the recent Report of the Departmental Committee on the Pupil Teacher system. Not only by their specific recommendations, but, even more, by the Syllabuses which they have suggested for the courses of study of Pupil Teachers and of Students in Training Colleges, the Committee have indicated the lines upon which this broader training may be best pursued.

The Cambridge Series for Schools and Training Colleges, to be published by the Cambridge University Press, has been prepared in the conviction that text-books simple in style and arrangement and written by authors of standing are called for to meet the needs of both pupil teachers and candidates for Certificates. Care will be taken to combine a high standard of excellence with adaptation to the practical needs of those for whom the series is specially intended. To this end the general Editorship of the series has been entrusted to Mr. W. H. Woodward, of Christ Church, Oxford, now the Principal of University (Day) Training College, Liverpool, and Lecturer on Education in Victoria University. At the same time, it is believed, that most of the works comprised in the Series will be well suited to the needs of Secondary and Public Schools.

Arrangements have already been made for the publication in this series of the following works :—

A History of Education from the beginning of the Renaissance; by William H. Woodward.

An Introduction to Psychology; by George Frederick Stout, late Fellow of St. John's College, Cambridge, Lecturer in Comparative Psychology in the University of Aberdeen, and Johns Adams, Rector of the Free Church Training College, Aberdeen.

The Making of Character: the Educational Aspects of Ethics: by John MacCunn, Balliol College, Oxford, Professor of Philosophy in University College, Liverpool.

An Introduction to the Theory and Practice of the Kinder-Garten, compiled especially for Students in Training by Elinor A. Welldon, Head Mistress of the Kinder-Garten Department, The Ladies' College, Cheltenham.

REVIEWS.

THE VICTORIAN ERA SERIES.

(1) *English National Education*, by H. Holman, M.A.—As a compact work of reference, Mr. Holman's book may prove useful; it attempts to cover the whole field of the History of Education in England and deals in considerable detail with that portion which falls within the reign of Queen Victoria. We regret, however, that, with all its undoubted merits, the book cannot be described as attractive or even as of ordinary interest, except perhaps for the specialist, to whom, we suspect, a good deal of it would appear somewhat obvious. The fact is Mr. Holman adopts a tone altogether too censorious, not to say comminatory. He reviles the past and despises the present, and yet Mr. Holman himself is an outcome of the one and in part responsible for the other. What are we to think, when one of the pioneers of the new education tells us that this very national system which his educationalist friends have so lately introduced has only two faults, *viz.*, it is not national nor is it educational? Mr. Holman writes too much like a young man in a hurry. We venture to think that educationists themselves, as well as the nation at large, need educating, and that the process must be a gradual one. Until time and increased experience have swept away unsuitable theories and crude experiments, educational practice must needs remain tentative and uncertain—and a speedy reform is not to be looked for. In conclusion, we would hint that unstinted admiration of Pestalozzi and "applied psychology," whatever that may be (we fancy it is generally found in madhouses or hospitals), cannot be held an excuse for peevish girding at "Matthew Arnold, the poet," as Mr. Holman naively calls him.

(2) *Charles Dickens*, by George Gissing.—*Pace* the "scientific educationalist," we would hazard the suggestion that a sympathetic study of Dickens is more likely to lead to a true appreciation of both the good and the bad sides of the new education, than the perusal of many cut and dried handbooks on the subject. And, to our minds, no more sympathetic— and yet accurate—account of Dickens has appeared than that contributed by Mr. Gissing to the "Victorian Series." A realist *de meliore luto*, Mr. Gissing has known how to appraise at its correct value the "Realism" of Dickens; an analyst of motive and feeling, he has been able to separate and set down in their true proportions the false and the genuine elements in

Dickens's sentiment and emotionalism; a Londoner, who knows his London, he has had the privilege of following both literally and metaphorically in the Master's footsteps. Better qualifications and better performance could not be desired. True, there are points where we might join issue with one or two of his "pronouncements," but these are mainly matters of taste. For example, we think that Mr. Gissing is somewhat hard on Dickens's presentation of what it was the fashion to call "the sex." Surely to be "kittenish" is not a crime, and we have yet to learn that the shrew is a normal development from the female progeny of the cat. And why has Mr. Gissing said nothing of Agnes? She, in our opinion, would compensate for a good many kittens and shrews. Again, we should have welcomed a word of protest against Dickens's American caricatures—sketches they can hardly be called. But criticism of this kind is querulous, and, rather than air our particular likes and dis-likes, we would thank the author for producing what is the most impartial and yet the most truly sympathetic account that we have met of the greatest novelist (but one) of the century.

(3) *The British Colonies,* by the Rev. W. P. Greswell, M.A.—The fatuity of the British Government in its dealings with the colonies has become a common-place of colonial history, but in the beginning of the Victorian era this defect was only part and parcel of a general fatuity sprung of insular pride, ignorance and prejudice, that had hardened like a shell round the stay-at-home portion of the nation. The internal operations of this spirit upon British society and British morals have been pointed out by Mr. Gissing; its equally baneful external influence is dealt with by the Rev. Mr. Greswell. The latter points out how crassly and persistently the central administration misunderstood and misrepresented the ideals of a sound Colonial policy; he might have gone on to show that the ministers were but expressing the views of a majority of the resident inhabitants. The lower orders were too ignorant to know anything of the colonies beyond perhaps what they had learnt by service abroad in the army, or navy, or what personal experience in a convict station might teach them. The middle class were sunk in the slough of "Benthamism," and had ears only for the piping of the Manchester School. With the ignorance of the masses and the timid selfishness of the middle class the aristocracy combined a careless indifference peculiarly their own. Dark as this picture seems,

its darkness is not altogether without relief. There was a minority that cared, and that tried to understand, and, above all, there was the constant stream of emigrants whose temper—in spite of the old Latin saying—was changed by their voyage across the sea and its consequences. They lost their prejudices but would not lose their privileges. If the latter could not be maintained with the help and consent of those at home then they should be maintained without. The fortune that waits upon blind men and fools preserved our Colonial Empire, until in the last quarter of the 19th century, a nobler spirit arose and prevailed, not merely in the counsels of Government, but (which is an infinitely greater thing), in the mind of the nation at large. At length we know the value of our heritage.

The process of this change of national opinion might perhaps have been brought out more clearly and thoroughly by Mr. Greswell, had he not chosen to fix his attention rather on the details of colonial administration, in which we are sometimes unable to see the wood for the trees. Even in regard to these, his treatment is not altogether satisfactory.

For instance, we should like to know more about the Roman Catholic establishment in Canada. We read of the pretensions of the Episcopal Church and gather that they were excessive and, as such, unjustifiable, but how is it that nothing is said of the enormous income enjoyed by the Catholic Church of French Canada, murmurs against which we have ourselves often heard from non-Catholic settlers in the lower province? "The Establishment question," is by no means settled yet in Canada, any more than in England. Considering the enormous influence of the Transvaal in Cape politics we should have liked more detail in Mr. Greswell's account of the Boers, and why do we hear so little of the Chartered Company or indeed of any of the African companies? Surely, they are not a factor to be lightly passed over by the student of modern colonization. For information as to them and also as to the land system and socialistic tendencies of New Zealand we could well have spared the appendix.

Notwithstanding these deficiencies, the book is useful and interesting, the criticism is impartial and the judgments are sound. We wish we could apply the last epithet to its style, but this with all our good will, we cannot do. What, we would ask, is a "dormant egg," what does Mr. Greswell understand by "Briefs" and "Tutelage," and what, oh what, is it that is "on the surface" in the phrase "The text of a more laborious essay than appears on the surface" (p. 18)? Lastly, can Mr. Greswell defend the form of every sentence on p. 138?

The Monro Doctrine.—W. F. Reddaway, B. A.—Mr. Reddaway's critical examination of the Monro Doctrine has appeared at a very opportune time, though not perhaps so wholly opportune as the occasion of the Venezuela controversy, when recourse was had by the United States to this theory of foreign policy to justify their interference in matters which, to the disinterested onlooker, would have seemed to be the concern only of the British and Venezuelan governments.

The recent intervention in Cuba is, no doubt, also based on one or other of the Protean phases of the Doctrine, but seeing that the United States have by their action during the war (as too in regard to Hawaii) departed at least from one of its fundamental principles, we cannot now consider it as a whole to be in any way a part of International Law.

Mr. Reddaway's essay, however, is devoted to showing—and by no means unsuccessfully—that the Monro Doctrine never was and never could be regarded in that light by any nation other than the United States. It was never admitted in its entirety by one or any combination of the Great Powers, and the Americans themselves have never had the power to enforce its recognition. In fact, so far from being a principle of International Law, it is, Mr. Reddaway holds, merely a "private political tradition" of the United States, and did not even originate with the statesman on whom it is fathered, but with that Ajax of American diplomacy, John Quincy Adams.

Personally, we think Mr. Reddaway makes out a very good case for the prosecution, but *audi alteram partem*, we should like to hear the reply of American counsel for the defence.

We have also received the following new books and new editions, some of which will be noticed later:—

Messrs. George Bell & Sons.—An Introduction to Euclid, including Euclid 1-26 with explanations and easy exercises. By H. Deighton, M. A., and O. Emtage, B. A. 1s. 6d.
Elementary Conics. By W. H. Besant. 2s. 6d.
Examples in Analytical Conics for Beginners. By W. M. Baker, M. A. 2s. 6d.

Messrs. Blackie & Son, Ld.—The Rise of Democracy. By J. Holland Rose, M. A. 2s. 6d.
The Anglican Revival. By Canon Overton, D. D. 2s. 6d.
John Bright. By C. A. Vince, M. A. 2s. 6d.
Charles Dickens. By George Gissing. 2s. 6d.
The Growth and Administration of the British Colonies. By the Rev. W. P. Greswell, M. A. 2s. 6d.
The Free-trade Movement and its Results. By G. Armitage-Smith, M. A. 2s. 6d.
Higher Arithmetic and Mensuration. By Edward Murray. 3s. 6d.
Elementary Physics: Practical and Theoretical. First Year's Course. By John G. Kerr, M. A. 1s. 6d.
Elementary Chemistry: Practical and Theoretical. First Year's Course. By T. A. Cheetham, F. C. S. 1s. 6d.
The Palmerston Readers, with illustrations in colour and black and white. Four primers and six readers, priced 4d., 5d., 6d., 7d., 9d., 10d., 1s., 1s. 4d., 1s. 6d., and 1s. 6d., respectively.

Messrs. A. & C. Black.—The Story of Gladstone's Life. By Justin McCarthy, second editon, revised and enlarged. 7s. 6d.
Introduction to Algebra for the use of Secondary Schools and Technical Colleges. By G. Chrystal, M. A., LL. D. Price, 5s.

Messrs. Wm. Blackwood & Sons.—Foreign Classics for English Readers: *Dante*, edited by Mrs. Oliphant. *Voltaire*, edited by the same. New and cheaper editions. 1s. each.

Messrs. C. J. Clay & Sons.—Shakespeare's Tempest, edited by A. W. Verity, M. A., with additional notes for Indian Students. By F. J. Rowe, M. A. 1s. 6d.
Gray's English Poems, Original and translated from the Norse and Welsh, edited by D. C. Tovey, M. A. 4s.

Mr. E. Seymour Hale.—Jane Austin's Pride and Prejudice, annotated edition. By M. Macmillan, B. A.
Text with 150 pp. notes, cloth, Rs 2.
Notes separately, paper cover, Re 1-8.
Scott's Rokeby, edited by J. Dennis, As. 8.

Mr. A. M. Holden.—"London:" A short History with Maps and Illustrations. By M. J. C. Meiklejohn, B. A. Price, 1s. 6d.

Messrs. Macmillan & Co., Ld.—Macmillan's Advanced Reader. Price

The Citizen of India. By W. Lee-Warner, C. S. I., M. A., illustrated. Price, Re. 1-4.

Arithmetic for India, being Barnard Smith's and Hudson's Arithmetic for Schools, revised and adapted for use in India. By W. B. Morren, M. A. Price, Rs. 2.

Handbook of English Grammar and Composition for Indian Students. By Michael Macmillan, B. A., and Dossabhai Byramji Hakim. Price, Rs. 2-8.

Hints on the Study of English. By F. J. Rowe, M. A., and W. T. Webb, M. A., eighth edition. Price, Rs. 2-8.

Macmillan's Atlas for Indian Schools. Price, One Rupee.

Messrs. George Philip and Son.—"Examination" Drawing copies, new and revised editions, printed on thick cards, in card cases. By H. C. Wilcocks, 9 sets, priced, 4 at 1s. each and 5 at 1s 6d. each.

Philip's "Practical" Memory Maps, printed in black and three colours, on cardboard, a series of 36 Maps. ½d. each.

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Philip's Anatomical Models. The Physiology of Pregnancy and Childbirth, anatomically represented by superimposed coloured plates, with text. By A. E. Giles, M. D., etc. Price, 3s. nett.

Philip's Special War Map of Cuba on an enlarged scale. Cloth, 2s. 6d.

The Foundations of Success, a plea for Rational Education. By Stanley DeBrath, M. Inst. C. E., a new and cheaper edition, paper boards. Price, 1s.

Messrs. Sir Isaac Pitman and Sons, Ld.—

Shorthand:

Goldsmith's Vicar of Wakefield. New edn. 2s.
Dicken's Haunted Man. 1s. 6d.
Macaulay's Warren Hastings. 1s. 6d.
Jules Verne's Around the World in 80 days. 1s.
Brief Reporting Notes. 6d.

Business Publications.

Manual of Business Training. 2s. 6d.
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Molière's L'Avare, annotated. 1s. 6d.
Manual of Practical French Grammar. Paper cover, 1s.; cloth, 1s. 6d.
Tourists' French Vade Mecum. 1s.
" German " 1s.
Hier Und Da. 6d.
Madge's Letters. 6d.

Mr. Grant Richards.—Logic, Deductive and Inductive. By Carveth Read, M. A. Price, 6s.

Messrs. Service and Paton.—The Whitehall Library. The History of Henry Esmond, Esq. By W. M. Thackeray. Cloth, 1s. 6d.

Superintendent Government Printing, Calcutta.—Entomological Series No. 7. The Agricultural Ledger, 1897, No. 18. White Ants as a pest of Agriculture: a Note by a Settlement Officer of Balaghat, C. P.

Vegetable Product Series No. 37. Dyes and Tans. The Agricultural Ledger, 1897, No. 20: a Note by Mr. R. S. Joshi, Supt., Nagpur Experimental Farm on Al Cultivation, Dyeing and Printing in the C. P.

⁂ Publishers and others are requested to note that this list is exclusively reserved for new books and new editions. Books for review in this paper may be delivered in London with a memo. of value to Messrs. George Bell and Sons, 5, York Street, Covent Garden, W. C., who will enclose them in Mr. Hale's shipments to Bombay, or they may be posted direct. All such parcels should be addressed to The Editors, "Bombay Educational Record and Literary Journal," 53, Esplanade Road, Bombay. Parcels of which the value for shipping purposes is not stated, cannot be received by Messrs. Bell.

NOTIFICATIONS.

CIRCULAR.

No. 4137 of 1898. Revenue Department,
Bombay Castle, 22nd June 1898.

His Excellency the Governor in Council has recently observed an increasing tendency on the part of Government officers to use vernacular terms in official correspondence. The undersigned is accordingly directed to invite the attention of heads of offices to the instructions of the Government of India contained in their letter embodied in the preamble of Government Resolution, General Department, No. 901, dated 5th March 1895, directing that the employment of such terms in official correspondence should be avoided as far as possible.

(Signed) H. S. LAWRENCE,
Under-Secretary to Government.

To The General Department of the Secretariat,
All other Departments of the Secretariat,
All Heads of offices under the Revenue and Financial Departments of the Secretariat,
The Mint Master,
The Assay Master, Bombay Mint,
The Post Master General,
The Private Secretary to His Excellency the Governor.

No. 1996 of 1898-99. *Poona, Office of the Director*
MEMO. *of Public Instruction*, *8th July* 1898.

Copy forwarded to E. Seymour Hale, Esq., Manager of the *Bombay Educational Record*, for publication in the next issue of the *Record*.

E. GILES,
Director of Public Instruction.

Educational Department. Bombay Castle,
No. 762. *28th June* 1898.

CIRCULAR.

With reference to Government Circular No. 1857, dated 1st October 1896, His Excellency the Governor in Council is pleased to direct that certificates of age and nationality given to candidates for the Provincial Civil Service should be in the form prescribed in the Government of India Notification No. 404, dated 19th May 1898, which was promulgated with Government Resolution, General Department, No. 3437, dated 15th June 1898, and republished by that Department notification of the same number and date at pages 507 and 508 of the *Bombay Government Gazette*, Part I, of the 16th June 1898.

A. C. LOGAN,
Acting *Secretary to Government.*

No. 2039 of 1898-99. *Poona, Office of the Director of Public Instruction,*

MEMO. *9th July* 1898.

Copy forwarded to E. Seymour Hale, Esq., Manager of the *Bombay Educational Record*, for publication in the next issue of the *Record*.

E. GILES,
Director of Public Instruction.

Charitable Endowments.

Instructions regarding the submission of complete documents in connection with proposals for vesting funds in the Treasurer of Charitable Endowments for the Bombay Presidency.

No. 2990.
Financial Department,
Bombay Castle, 4th July 1898.

Resolution of Government in the Educational Department, No. 613, dated 27th May 1898—Approving of the draft vesting order and scheme as finally amended by the Remembrancer of Legal Affairs for vesting the Fardunji Sorábji Párekh School of Art and Industry Fund in the Treasurer of Charitable Endowments; and forwarding for the issue of the necessary orders the following extract paragraph 3 of the report of the Remembrancer of Legal Affairs, No. 551, dated 27th April 1897:—

> "3. It is hoped, however, that in future complete drafts of any application, vesting order and scheme under the Charitable Endowments Act, 1890, will be furnished by corporations or Educational institutions through the Director of Public Instruction. It often happens that considerable delay and trouble are caused by these necessary documents not being supplied, or being supplied in improper form, by the parties concerned. I would ask Government therefore to be good enough once more to draw the attention of the Director of Public Instruction, of the Surgeon-General with Government, and of other officers concerned, to the proper procedure to be followed in such cases, *viz.*, the submission not only of an application, but also of a draft vesting order and scheme under the Charitable Endowments Act, 1890. In this connection reference may be made to the previous instructions of Government in Government Notification No. 3673 of 5th November 1890, Financial Department (appended to Government Resolution No. 813 of 7th March 1891, Financial Department), Government Resolution (Educational), No. 896 of 29th April 1893,

Government Resolution (Financial), No. 520 of 12th February 1895, and Government Resolution (Educational), No. 1823 of 18th September 1895."

RESOLUTION.—The attention of all Heads of Offices should be specially invited to the Resolutions of Government specified in the margin, and they should be requested to see that the documents mentioned by the Remembrancer of Legal Affairs are submitted in proper form with every proposal for vesting a fund in the Treasurer of Charitable Endowments for the Bombay Presidency.

No. 813, dated 7th March 1891.
" 1752, " 18th May 1894.
" 520, " 12th February 1895.

H. S. LAWRENCE,
Under-Secretary to Government.

Government Servants.—

Regarding the grant of legal assistance for the defence of—charged with criminal offences in regard to their official duties.

General Department, *Bombay Castle*, 5*th July* 1898.

No. 3800. *Resolution of Government.*

Government are pleased to rule that a Government servant charged with a criminal offence in regard to his official duty who considers it necessary to obtain legal assistance for his defence must, if he proposes to seek reimbursement from Government, immediately refer to his official superior the question whether the case is one in which *primâ facie* it is reasonably necessary to engage such assistance.

2. The expression of an opinion by a responsible officer that the retention of professional assistance is necessary or advisable must not be understood to pledge Government, and Government will not in any case sanction the disbursement of fees for special counsel when ordinary professional assistance would have sufficed.

A. C. LOGAN,
Acting *Secretary to Government.*

Poona, Office of the Director
of Public Instruction,
No. 2286 of 1898-99. 15*th July* 1898.

Copy forwarded to the Manager, *Bombay Educational Record*, for publication in the next issue of the *Record*.

E. GILES,
Director of Public Instruction

List of Appointments in the Educational Department from 15th June to 15th July 1898.

23rd June 1898. The following appointments are made in the Broach High School:—

Mr. M. N. Dalal, B. A., 5th Assistant, Broach High School, and *sub. pro tem.* 6th Assistant, Surat High School, to be 4th Assistant, Broach High School, *vice* Mr. Agarvala.

Mr. B. K. Agarvala, B.A., 4th Assistant, Broach High School, and *sub. pro tem.* 3rd Assistant, Nariad High School, to be 5th Assistant, Broach High School, on Rs. 60.

2nd July 1898. The following appointments are made in the Poona High School:—

Mr. K. V. Sohoni, B A., 7th Assistant, to be 4th Assistant.

Mr. M. B. Bopardikar, 6th Assistant, to be 5th Assistant.

Mr. R. B. Atre, F.E.A., 3rd Assistant, Satara High School, to be 6th Assistant.

Mr. G. B. Brahme, B.A., 9th Assistant, to be 7th Assistant.

Mr. H. V. Godbole, B.A., 5th and *sub. pro tem.* 4th Assistant, Satara High School, to be 8th Assistant.

Mr. G. G. Nene, B.A., 5th Assistant and *sub. pro tem.* 4th Assistant, Sholapur High School, to be 9th Assistant.

2nd July 1898. Mr. P. R. Godbole, B.A., 4th Assistant, Nasik High School, is appointed 3rd Assistant, Satara High School, *vice* Mr. Atre, transferred to Poona.

2nd July 1898. Mr. K. G. Pundlik, B.A., *sub. pro tem.* 5th Assistant, Sholapur High School, is confirmed in his appointment.

4th July 1898. The following appointments are made in the Sholapur High School:—

Mr. D. S. Savarkar, L.C.E., 8th and *sub. pro tem.* 7th Assistant, Poona High School, to be 2nd Assistant, *vice* Mr. K. N. Gokhale, deceased.

Mr. B. M. Kale, B.A., 6th and *sub. pro tem.* 5th Assistant, Satara High School, to be 4th Assistant, Sholapur High School.

9th July 1898. In consequence of the death of Mr. H. K. Bharucha, Head Master, Godra High School, and *sub. pro tem.* Head Master, Nariad High School, the following appointments are made:—

Mr. D. H. Vacha, M.A., 1st Assistant, Surat High School, to be Head Master, Godra High School.

Mr. B. N. Dave, 1st Assistant, Ahmedabad High School, and *sub. pro tem.* 1st Assistant, Surat High School, to be 1st Assistant, Surat High School.

Mr. J. G. Shastri, B.A., 1st Assistant, Training College, Ahmedabad, and *sub. pro tem.* 1st Assistant, Ahmedabad High School, to be 1st Assistant, Ahmedabad High School.

15th July 1898. Mr. U. G. Thadani, B.A., is appointed 8th Assistant Master, N. J. High School, Karachi.

E. GILES,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
21st July 1898.

The following new books are now available in the Educational Library, Bombay;—

Author.	Title of Work.	Publisher.	Price.
	Ship Literary Readers, First Primer ...	Longmans, Green & Co.	
	Do. Second Primer...	Do.	
	Do. Infant Reader ...	Do.	
	Do. Book 1	Do.	
	Do. do. 2	Do.	
	Do. do. 3	Do.	
	Do. do. 4	Do.	
	Do. do. 5	Do	
	Do. do. 6	Do.	s. d.
	New Geographical Readers, First Readers ..	Do.	0 9
	Do. Second Reader...	Do.	1 0
	Do Third do. ...	Do.	1 3
	Do. Fourth do. ..	Do.	1 4
	Do. Fifth do. ..	Do.	1 6
	Do. Sixth do. ...	Do.	1 9
	Do. British Colonies.	Do.	1 9
	Do. Seventh Reader.	Do.	1 9
	Geographical Series, Book I. ...	Do.	1 6
	Do. do. II. ..	Do.	3 0
	Do. do. III. ...	Do.	4 6
	Do. do. IV. ...	Do.	3 6
John Thornton, M A.	Do. do. V. ..	Do.	2 0
	Ship Historical Readers, Book 1.	Do.	0 9
David Salmon ...	Do. do. 3	Do.	1 0
	Do. do. 4	Do.	1 4
S. R, Gardiner, D.C.L., LL. D..	Do. do. 5.	Do.	1 6
Do. ...	Do. do. 6.	Do.	1 8
	Do. do. 7.	Do.	1 9
Lois Bates ...	Infant Fairy Readers	Do.	0 6
Mrs. Heller ...	Do. ...	Do.	0 6
Do. ...	Do. (Snowdrop) ...	Do.	0 6

Author.	Title of Works.	Publisher.	Price.	
			Schl. Edition. s. d.	Schl. Prize Edition. s. d.
Andrew Lang ...	Fairy Tale Books, Cinderella ...	Longmans, Green & Co.	0 8	1 0
Do. ...	Do. Little Red Riding Hood ..	Do.	0 8	1 0
Do. ...	Do. Jack the Giant-Killer	Do.	0 9	1 0
Do. ...	Do. The Sleeping Beauty in the Wood	Do.	0 9	1 0
Do. ...	Do. The History of Whitington ...	Do.	1 0	1 6
Do. ...	Do. The Princess on the Glass Hill ..	Do.	1 0	1 6
Do. ..	Do. Prince Darling ..	Do.	1 4	2 0
Do. ...	The Blue True Story Book ..	Do.	s. d. 1 4	
Walter Besant ...	History of London	Do.		
P. Anderson Graham ...	The Victorian Era	Do.		
A. Conan Doyle.	Micap Clarke	Do.	1 6	
Andrew Lang ...	The Red True Story Book ..	Do.		
Mrs. J. G. Frazer.	Scenes of Child Life in Colloquial French	Macmillan & Co.		
G. Evgene Fasnacht	Voyage Autour De Ma Chambre.	Do.		
William Lawson, F. R. G. S. ...	Text-book of Physical Geography	Oliver and Boyd.	3 6	
Vincent T. Murche.	Domestic Science Reader, Book VII.	Macmillan & Co.	1 9	
D. C. Tovey, M.A.	Gray's English Poems	C. J. Clay & Sons.	1 6	
Fredrick Ryland, M. A.	Selections from Browning ..	George Bell & Sons.	2 6	
A. W. Verity, M.A., and F J. Rowe, M.A.	The Tempest	C. J. Clay & Sons.		
Vincent T. Murche ...	Object Lessons in Domestic Economy	Macmillan & Co.		
Robert S. Wood. -	Word-Building Derivation and Composition	Do.	0 6	
	A Selected List of Educational Books	Do.		
	A List of Books for Elementary Schools	Do.		
F. F. Roget, B.A.	Le Verre D'Eau	Do.		
Louis Sers, B. Es. L.	L'Anneau D'Argent	Do.		

Poona, Office of the Director of Public Instruction,
21st July 1898.

E. GILES,
Director of Public Instruction.

Established 1864—1894. *Re-issued* 1898.

The Bombay Educational Record And Literary Journal.

Vol. XXXI.] SEPTEMBER 1898. [No. 3.

Physical Education.

OUR readers, perhaps, will remember the famous Convocation address delivered a few years ago by the ex-Vice-Chancellor of our University, Dr. R. G. Bhandarkar. The learned doctor attributed the premature breaking down of some of our brightest University men to the neglect of physical exercise. In spite of the severe criticisms which his remarks met at the time, the fact remains that our students—especially the Hindu students—as a body are yet very far from recognising the importance of physical exercise as an essential part of education. This is indeed to be greatly regretted since the peculiar circumstances of Hindu life render its neglect specially productive of dangerous consequences. And as a result the University student at the very threshold of life finds that he has educated himself at the expense both of mind and body and has all originality and interest crushed out of him. These considerations might sadly damp the optimism of the most sanguine enthusiast as to the future of our education, but one naturally enough is led to ask if there be any way to meet the evil. The problem indeed must engage the serious attention of everyone interested in student life in India, and since it has been incidentally brought before the Senate it may not be quite *mal à propos* for us to express our minds on the subject also. The compartment scheme had its origin in the strong sympathy which its learned exponent feels for the hard lot of the poor student who with Scotch tenacity plods onwards towards his goal and ruins his health in the struggle. We are afraid, however, the scheme is not wide enough for the end it has in view, since the more talented students on whom the struggle is most telling will hardly think of spending more time in their academic course than the regulations render absolutely necessary. Instead of lowering the standard so as to suit the physical capacity of those for whom it is intended, it would, we are inclined to think, be better, if possible, to bring our students up to a standard of physical fitness, the attainment of which might make the strain of University studies more easy to bear. This leads us directly to consider what the causes are that make the average Hindu student constitutionally ill-adapted for a strain which is in itself by no means severe. The social environment of the Hindus hindering free growth and causing neglect of physical exercise is, we believe, responsible for such a result. It must therefore be in these directions that we must look for the remedy. It is not our intention here to touch upon social reform. We shall content ourselves with seeing if any sound measures can be taken to encourage physical education among our students. We believe that a great deal can be accomplished in this direction by the independent efforts of various colleges. The Elphinstone College has set an example, the success of which, it is to be hoped, will induce other colleges to follow in its wake. It was in 1893 that Principal R. G. Oxenham, with the sanction of the Government of Lord Harris, made it compulsory on every student of the Elphinstone College to join the college gymkhana, the fee being Rs. 4 per term. It was hardly realised at the time that it was a step, though a silent one, in the cause of physical education in the Presidency. The results of the gymkhana during the last six years have far exceeded our most sanguine expectations. The college gymkhana fortunately possesses one of the best plots of ground in the city as its own. For this the gymkhana is deeply indebted to the Government of Lord Harris, which also sanctioned a grant of Rs. 3,000 for improving the ground and making it useful for cricket purposes. It is greatly to be wished that the gymkhana would express its sense of gratitude by following the lead of the other gymkhanas in the city which are provided with good portraits of Lord Harris. Principal R. G. Oxenham, who has done great service to the cause of physical education, by placing the gymkhanas of the Deccan and Elphinstone Colleges on a sound footing deserves a good memorial. It is no exaggeration to say that many a graduate of the Deccan and Elphinstone Colleges will be saved from a premature failure of health by his availing himself of the advantages conferred by the efforts of Mr. Oxenham.

As already remarked, the results shewn by the gymkhana during the past few years have been so far satisfactory. There is, however, room for increasing its usefulness and making its influence more deeply felt among the students. If the college professors will not only take part in the college matches but occasionally show themselves on the gymkhana ground and encourage their students, there is every reason to believe that a larger number of students of the college will in future avail themselves of the splendid opportunities given to them of refreshing their mind and invigorating their body after hard college work. The time is not far distant when many a graduate of our University will have a kind word to say in their afterlife about the early promoters of the gymkhana.

It was a wise foresight on the part of the promoters of the compulsory membership of the gymkhana that it was arranged that every student, whether he makes use of the gymkhana or not, must contribute his share to the gymkhana fund, because if the benefits had been offered gratis very few of our students, we are afraid, would have appreciated the advantages conferred by the gymkhana. The idea that he should make a beneficial use of his four rupees paid every six months for the maintenance of the gymkhana has induced many a student—who would have otherwise like his unfortunate brethren of other colleges, never have thought of outdoor exercise—to spend some time every day in active sport and mix in the field with other students.

It is not out of place to mention in passing the zeal and indefatigable services of Professor Müller and Mr. S. F. Mulla to whom the present enviable position of the Elphinstone College Gymkhana is greatly due. Since 1893 Professor Müller, as the guiding spirit, and Sorab Mulla, in the capacity of secretary and captain, have laboured much in bringing about the present development of the gymkhana and placing it on a sure and permanent footing. Many there are whose striking exhibitions in the college matches were due to the kind and inspiring words of Professor Müller, who, in spite of his manifold engagements and duties, has week after week spared time and

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devoted much energy to ensure the success of his college eleven. If every professor cares to work half as much as Professor Müller does in the welfare and progress of the college gymkhana, not only will immense benefit accrue to the gymkhana, but indirectly the prestige of the college itself will be increased. It is difficult to explain the absence of late of professors, not only in matches and on the play ground every evening, but even as spectators on match days, whereas such was not the case in 1894 and 1895. Even in intercollegiate matches the absence of professors as spectators is marked by all, and this deprives the gymkhana of its prestige and the matches of much of their interest. For the lack of interest in intercollegiate matches and even in the University match of 1896 and the discontinuance of this last very important and interesting feature of local cricket the professors are held responsible by some.

If the present active workers of the gymkhana well consider their responsibilities, they will realise that there is great scope for the promotion of the cause of physical education, which is so sadly neglected in our University. Whatever may be the opinion of others, we most respectfully venture to suggest that if instead of preaching big sermons about the necessity and means of promoting physical education at our Convocations and other public meetings, the leading members of the University Senate could see their way to induce all college authorities to start college gymkhanas on practical lines, many of our hard-worked graduates would be saved from premature failure of health and even death. Will not the leading members of the Senate direct their energies to this serious subject, or will not some of our junior graduates and under-graduates form themselves into a league, and, taking up this work, bring it to a successful issue, thereby rendering service and doing an immeasurable and everlasting good to their country? Our suggestion is reasonable as well as practicable. It seems we are of late becoming keenly alive to the necessity of encouraging physical education. Fortunately a little is being done in this direction by the School Athletic Association, about which we shall speak later. In past years the cricket field was monopolised, as it were, by those unconnected with education, and there was hardly a good player in our colleges. Of late there are happy auguries in this direction owing to the impetus given by the Association to our school-boys. We find in this year's Elphinstone College Eleven no less than seven cricketers—all of them very good all-round men—

who have at one time or other taken part in the Association matches, and within a few years it is hoped that our colleges will take a good share in the forming of the Parsi Eleven against the Presidency.

We strongly recommend every under-graduate studying at the Elphinstone College to avail himself of the splendid opportunities given to him by devoting some time daily to cricket—in fact, he should consider it as essential as his college lectures. A true liberal education can hardly be attained and perfected by regularly attending college lectures and sitting several hours at a desk with books. He must always bear in mind that cricket has done more than anything else to elevate at once the moral and physical tone, to call forth energy and promptitude and muscular force, to develop judgment, watchfulness, endurance, courage, generous emulation, appreciation of the merits of others, manly acceptance of defeat and manly modesty in success.

Later on, we will make an attempt to review the progress and development of the College Cricket since 1893, remarking especially upon the performances of those college cricketers who have had a hand in bringing the Gymkhana to the present high position which it occupies in local cricket.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

The University and Examinations.

AT a Meeting of the Senate, held in the University Hall, on July 22nd, 1898, the Vice-Chancellor in the chair, the following letter and scheme for the grouping of examination subjects were submitted, several amendments also being suggested by Dr. Mackichan, Professor Müller and others.

"From

THE REGISTRAR,

To

THE SECRETARY TO GOVERNMENT,
Educational Department.

SIR,—I have the honour to inform you that your letter No. 1458 of 30th September last was placed before, and duly considered by, the Senate.

2. The Senate regret that their resolution was not placed before Government in the exact shape in which, strictly speaking, it should have been submitted for the sanction of Government. They understand, however, that the course followed by the Syndicate was in accordance with past precedents under which Government had raised no objection to the procedure followed by the Syndicate on this occasion. In future they have no doubt that care will be taken to submit changes proposed by the Senate in the Bye-laws and Regulations in strict technical form in which they may readily admit of being placed before Government for sanction.

3. In the third paragraph of your letter, it is observed that the general effect of the proposed changes will be to render the acquisition of a degree easier and consequently to lower its value not only as an academical distinction but also as a certificate of fitness for official life. With regard to this observation, the Senate desire to point out that the system of allowing students to pass by compartments is not an innovation for the first time attempted in this University. Under its present rules, a Bachelor of Science is permitted to obtain the degree of B.A. on passing in Languages, Logic, History and Political Economy, without being required to pass in the other subjects of the B.A. Examination. The reason is, that he has already passed in them before appearing for the B.Sc. degree. Similarly, candidates who have passed the First Examination in Agriculture are exempted from an examination in Mathematics at the First Examination in Arts. Candidates

who have passed at the First LL.B. in Roman Law and General Jurisprudence are exempted from passing in those subjects at the B.A. Examination. The Masters of Arts who have passed in Mathematics, Chemistry, Physics and Natural Science at their B.A. Examination are not required to pass again in Physics, Chemistry and Biology at the B. Sc. Examination. Candidates who have passed in Physics at the First B.Sc. Examination are not required to pass again in the subject at the First Examination in Medicine. Similarly, those who have passed in Chemistry and Botany at the B.Sc. are exempted from examination in these subjects at the First Examination in Medicine. Similar concessions are given to B.A. and B.Sc. candidates who appear for the examinations for the degree of Licentiate of Civil Engineering. It will be seen that these exemptions and concessions are made to candidates who obtain pass-marks only in one faculty when they appear as candidates for examinations in another faculty These Regulations have in no way lowered the quality or value of the degrees to which they relate; and it is not easy to see how the present change—proposed with a view to give relief to candidates who pass with credit in certain subjects in one examination, by not requiring them to pass in those subjects when they appear again at the same examination—can produce mischievous results. The rules of the University of Cambridge regarding its Previous Examination, as also its General Examination, provide that the examination shall consist of two parts, and the students are not obliged to pass in both parts at the same time, but have the option of appearing in one or both. The rules for the final examination for the ordinary B.A. degree provide for special examinations in Theology, Logic, Political Economy, Law, History, Chemistry, Physics, Mechanics and Classical languages. The examination in each of these subjects is divided into two parts, and candidates are permitted to take up either one or both parts together. In the Edinburgh University the regulations regarding the preliminary and other examinations embody similar principles. It may be noted that in both these Universities a plucked candidate has not to wait for a whole year before he can appear a second time at the same examination. In the Madras University a B.A. candidate is permitted to appear at his option for examination in any one division or any two divisions or in all three divisions in one year, and a candidate who passes in any one division is not required to re-appear in that division. At the various Inns of Court in England, the students are allowed to pass in each subject separately and the examinations are held several times in one year. It will be thus seen that there is nothing either novel or radical in the proposals accepted by the Senate. So far from lowering the value of the degree, the Senate is convinced that the proposed regulation will, if carried into effect, enable the students to be more thorough masters both of the subjects in which they pass with credit, and of those in which they fail and have to re-appear a second time. This is impossible under the present arrangement in which in too many cases the students find that they fail in subjects in which they already have passed in a previous year. Success or failure thus becomes largely a matter of chance, and the present rules discourage real study and stimulate cram, and thus defeat the real end of all examinations. These considerations influenced the Senate in passing the resolutions in question.

4. With regard to the observation of Government that the changes proposed are of too sweeping a character, the Senate desire to point out that at present pass-marks are not given for every examination paper, but are awarded for each subject which often includes more than one paper. The Senate were, besides, of opinion that the proposed changes would not in practice work in the manner apprehended in view of the well-known fact that by far the large majority of students could not possibly afford to devote a number of years to the passing of a single examination, which would be the case if the student attempted to pass in one subject at a time. The Senate therefore consider it no departure from the principles on which they have proceeded in this matter to take groups of subjects as the basis of their proposals; and the annexed list gives the scheme of grouping which, they propose, should be adopted. It may be mentioned that the grouping approved by the Senate proceeds very much on the same lines as that prevailing in the Madras University. It will be observed that the grouping of subjects cannot be accomplished without bringing together some subjects which have no natural affinity to one another; but this difficulty has not been found insuperable in Cambridge and other Universities, and would not be attended with any practical difficulties here.

5. In the fourth and concluding paragraph of their letter, Government are pleased to observe that they hesitate to confirm the recommendations of the Senate because in this matter a majority of the Syndicate did not approve the

changes proposed, and it is added that 'their opinion on such question as that now under consideration has therefore a peculiar value.' With reference to these observations the Senate desire to point out that the Syndicate is a body elected annually, and it does not follow that the opinion of the Syndicate of one year will be necessarily the opinion of the Syndicate of another year. The Syndicate is, besides, not a body composed of people other than Fellows of the Senate from whom alone the Syndics can be taken. But, beyond everything, the Syndicate is not a body created for final deliberative decision on questions affecting the government of the University. It is absolutely unkown to the Act by which the University is incorporated, and Section 8 of the Act of Incorporation provides that—

> 'The entire management of, and superintendence over, the affairs, &c., shall be with the Senate, and they shall have power to alter Bye-laws and Regulations touching the examinations and qualifications of the candidates for degrees and the previous course of instruction to be followed by them; and in general touching all other matters whatever regarding the said University.'

It is only in the Bye-laws of the University that the Syndicate comes into existence for the first time, and while Article 11 of the Bye-laws vests the executive government only of the University in the Syndicate, Article 12 provides that it shall carry on even its executive work 'subject to the revision and control of the Senate.' Articles 20, 21 and 22 show the limited nature of the functions of the Syndicate in regard to all questions before the Senate for deliberation and decision. They are only of a preparatory character. By Article 21, the decision of the Syndicate on any recommendation or proposal made by a member of the Senate or by a faculty 'may be brought before the Senate by any member of the Senate by way of Resolution at one of its meetings, and the Senate may approve, revise, modify or overrule any such decision or may direct the Syndicate to review it.' Article 22 provides that 'no proposal shall be entertained by the Senate that has not, in the first instance, been considered by the Syndicate, or submitted for a period of at least three months for consideration by the Syndicate. Provided that when any proposal has been duly brought before the Senate, it shall be competent to the Senate to deal with all proposed amendments or modifications thereof, in whatever form the same may be submitted to the Senate, without referring such amendments or modifications to the Syndicate for consideration.' It may be also mentioned that the limited number of which the Syndicate is composed precludes the possibility of utilizing all the talent in the Senate, and that the Faculties choose such Fellows as Syndics as are most readily available for the special executive work that the Syndicate has to perform.

6. I append hereto the exact additions and alterations in the Regulations to which the Senate seek the sanction of Government."

II.—In making the suggestion relating to grouping embodied in the above draft letter, the Committee think it right to point out that the minimum percentage of marks fixed by the Senate in their original Resolution for passing in subjects will be excessively high in the modified scheme of groups. They recommend that the minimum pass percentage in each subject should be the same as in the ordinary full examination, and that the minimum total percentage in each group should be the same as for passing in the whole examination. In the case of those examinations in which latterly a minimum total percentage for the whole examination is abolished, a special minimum total percentage for each group will have to be fixed.

PHEROZESHAH M. MEHTA.	CHIMANLAL H. SETALVAD.
M. G. RANADE.	P. PETERSON.
BHALCHANDRA KRISHNA.	R. SCOTT.
N. G. CHANDAVARKAR.	

I do not think it necessary to make any reference to the respective powers of the Senate and the Syndicate in the government of the University. Barring this, I am in full accord with the compromise suggested by the Committee* —the division of examinations into groups. The draft letter, however, is very clumsily worded, and I would suggest that it be recast by the Honourable M. G. Ranade. Sufficient stress, moreover, has not been laid on the fact that the Committee have suggested the compromise to meet some of the objections brought forward by Government against the previous scheme of passing in individual subjects.

4th May 1898. F. K. BANAJI.

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* The following gentlemen declined to serve on the Committee:—
Surgeon-Major H. P. Dimmock, L.R.C.P., M.R.C.S.
W. C. Hughes, Esquire, M.I.C.E.
O. V. Muller, Esquire, M.A.

GROUPING OF SUBJECTS AT VARIOUS EXAMINATIONS.

.—*Arts, B.A.*—

1. Previous Examination, 2 Groups—
   - *a* English, Second Language.
   - *b* Mathematics, History.
2. Intermediate Examination, 2 Groups—
   - *a* English, Second Language.
   - *b* Mathematics and Physics, Deductive Logic.
3. B. A. Degree Examination, 3 Groups—
   - *a* English, Second Language.
   - *b* History and Political Economy.
   - *c* Optional Subject.

B. Sc.—

1. Intermediate in Science Examination, 3 Groups—
   - *a* English.
   - *b* Mathematics, Physics.
   - *c* Chemistry, General Biology.
2. B. Sc. Examination, 2 subjects, both subjects in one Group.

I.—*Law*—

1. First LL.B. Examination, 2 subjects, both subjects in one Group.
2. Second LL.B. Examination, 3 Groups—
   - *a* Succession and Family Rights, Equity.
   - *b* Law of Contracts, Torts.
   - *c* Law of Evidence, Civil Procedure.

II.—*Medicine*—

1. First L. M. & S. Examination, 2 Groups—
   - *a* Chemistry and Practical Chemistry.
   - *b* Botany, Materia Medica and Pharmacy.
2. Second L. M. & S. Examination, both subjects in one Group.
3. L. M. & S. Degree Examination, 2 Groups—
   - *a* Medicine, including Pathology and Therapeutics.
   - *b* Midwifery and Diseases of Women, Medical Jurisprudence, including Practical Toxicology and Hygiene.

IV.—*Civil Engineering*—

1. F.C.E. Examination, 2 Groups—
   - *a* Mathematics, Physics.
   - *b* Engineering.
2. S. C. E. Examination, 2 Groups—
   - *a* Mathematics, Experimental Science.
   - *b* Engineering.
3. L. C. E. Examination, 3 Groups—
   - *a* Experimental and Natural Science.
   - *b* Civil Engineering.
   - *c* Selected Subject.

The amendments of Dr. Mackichan and Prof. Müller having been rejected, the letter and scheme proposed were accepted by a majority of the Senate.

Obituary.

Very Rev. John Caird, D.D., LL.D.

LAST month we recorded the resignation by Dr. Caird of his office as Principal of Glasgow University, and this month we learn of his death while yet Principal as his resignation was appointed to date from Monday, the 7th August. He died on the 30th July, at his brother's residence at Greenock, from failure of the heart's action. He was seventy-eight years of age. During the later years of his life he became an earnest student of Hegel, and his book, "An Introduction to the Philosophy of Religion," which he wrote at least three times over is a striking and brilliant presentation of the religious aspects of Hegel's philosophy.

Caird was a man of very noble qualities, a profound student, a consummate rhetorician, and a man of large and catholic spirit. What gave him his power was the fact that he was one of the very few orators of his generation, and his manner as an orator was particularly his own. He was a very great example of the union of true christianity and thorough culture, and we cannot doubt that his influence on the whole has been most salutary.

Dr. K. N. Bahadurji.

It is matter for universal regret in Bombay that Dr. K. N. Bahadurji passed away from this life on the evening of Monday, 15th August. Although suffering from fever for several weeks he continued to attend to his medical practice as well as to the Parsee Plague Hospital, of which he had been in charge ever since plague broke out in the city. Returning from Poona about a fortnight before, he caught a chill on the ghauts. The resulting fever was found to be of a typho-remittent type. Carefully nursed and most ably treated medically, he yet failed to recover, and at last succumbed to exhaustion and failure of the heart's action.

Dr. Bahadurji was born at Umra, near Surat, in the house of his grandfather on the 2nd November 1860. He was thus not 38 years of age at the time of his death. He Matriculated from St. Xavier's school, and attended the same institution till he passed the F. E. A. He failed to pass his B. A. Having competed for the Gilchrist Scholarship, he joined the University College of London and passed the Preliminary Science and the M. B. Examinations with distinction. He went to the Pasteur Institute and afterwards studied under Koch and Virchor in Berlin. Returning to London he passed his M. D. degree, the first granted to a student from this Presidency. He at the same time took his B. Sc. On his return to Bombay he fought strenuously to raise the status of the graduates of the Grant Medical College. The Government of Lord Reay appointed him to the Professorship of Pharmacology for three years, the Gaekwar providing the salary.

At the time of his death he represented the Bhuleshwar ward in the Corporation, and was also a prominent member of the Standing Committee of that body. He was elected President of the Medical Union of Bombay and also of the Medical and Physical Society.

At the annual meeting of the Indian Congress he seldom spoke except in the interest of the Medical profession. The people of Bombay, especially the Parsee community, will not readily forget the important services Dr. Bahadurji rendered during the plague visitation, and they one and all deeply deplore the sudden loss of one so accomplished cut off in the very prime of life.

English Ingenuity.

[*Contributed.*]

NO one who is a careful observer of what has been and is passing around him will for a moment question that very great progress has been made by the modern world in all the various branches of human discovery and acquirements, and that this century of progress has prepared the way for a still more rapid advance in the next. Science is awake and, triumphantly wafted onwards before the wind, she is gathering materials for bold speculations on man and nature which within a few years will have rendered obsolete all her previous achievements. Philosophical and theological speculations have gone a great length in broadening the capacities of the human mind, and consequently in laying a solid and sound foundation of human happiness on earth. No student of this fast expiring century, if he has ever paused to consider even why a steam-boat five years old consumes 25 per cent. more fuel than one built this year, can but ask with the poetic enthusiasm of a Tennyson

"Is this
' A time to sicken and to swoon,
" When Science reaches forth her arms,
" To feel from world to world, and charms,
" Her secret from the latest moon?"

Likewise, no student who knows the history of the material progress of man, and comprehends in the laws of Science a sublime manifestation of the ministry of nature—more wonderful than poets' fancy or Eastern hyperbole—can think it an exaggeration to say that the chief tools in the machine shops and factories of the world, that is, in other words, the strongest evidences of human skill and labour, are the pride and glory of the British intellect.

At the beginning of the 17th century, when the Dutch Netherlands were smarting under the Spanish yoke and struggling for the free employment of their talents, when France was in horrible convulsions owing to the Civil Wars and the massacre of the Huguenots, when religious contentions and political factions had given Europe an aspect like that of a great human slaughter house, when, in fine, the arts of peace were mercilessly strangled, and the teachings of the Prince of Peace were like a voice crying in the wilderness,—free, sinewy England, ever working like a giant refreshed, became so prosperous a rendezvous of all persecuted talents, that a Dutch refugee, with a wit holier and more felicitous than Shakespeare's, styled it the "Asylum Christi" or the Asylum of Christ.

So blooming, in fact, became the condition of affairs in England, when all Europe was in confusion, that the beginning of the Hanoverian dynasty is considered a landmark in the world's history of invention. The year 1712 had witnessed the production of the first chronometer by Harrison, the Lincolnshire carpenter. The curtain being thus once lifted, numbers of Englishmen in rapid succession have appeared on the stage to exhibit to the world the ultimate products of man's liberty, skill, and industry. From that time onwards, they have filled our histories with the names of benefactors, inventors and explorers, who by wresting secrets from all the four elements, have so saddled and bridled the forces of nature, that an elaborate and faithful representation of English ingenuity at the present day, beyond the bare statement that it has placed the riches of this opulent world freely at the service of all mankind, beggars description, and is impossible for the pen at least of mortal to grapple with successfully.

We, therefore, turn our thoughts from the degree of this intellectual prominence to the causes of its growth. It would, however, be out of keeping with the main object of this sketch, to dwell long on the geographical position and the climate of England. For, however great their benefits may be to that country, India cannot be compelled to change her climate and natural conditions, any more than the most successful African missionary can compel a blackamoor convert to become white. The natural advantages of England should not wring the thoughtful Indian's heart with envious despair even if it has already been aching—as it ought to be—with the incidental causes of his country's decrepitude. But, for the appropriate revelation of the secret of England's inward greatness, the opinions of one or two of her own illustrious sons cannot be dispensed with. Alison, speaking of England, has said: "From the insular situation of this country, it "has been exempted from the horrors of actual warfare. "* * * Securely cradled in the waves, her industry "has never felt the devastating influence of foreign conquest. * * * Periods of foreign hostility have been "known to her only from the increased excitation of "national feeling or the quickened encouragement of "domestic industry. The effects of this happy exemption

" from the peril of foreign invasion have been incalcul-"able." Sir W. Temple, however, goes a little deeper to the root of the matter when he attributes most of the national peculiarities of the English to their country's climate. Continuing, he says: "For my own part, who "have conversed much with men of other nations, and "such as have been both in great employments and "esteem, I can say very impartially that I have not "observed among any, so much true genius as among the "English; nowhere more sharpness of wit, more pleasant-"ness of humour, more range of fancy, more penetration "of thought or depth of reflection."

This much for the genial influence of nature in moulding the character of the English. But nature rarely persists unmodified in man; human art must supplement nature, else " Nature, appall'd, shakes off her wonted greatness." Hence we must now set ourselves to consider the most important of the artificial and superinduced causes of all greatness, namely—Education. Pope sang:

"'Tis education forms the common mind;
"Just as the twig is bent, the tree's inclined."

Education, in general, means the process of exalting the faculties of the mind; an educated man is "he who "has the ability to summon in an emergency his mental "powers in vigorous exercise to effect its proposed "object." The formation and training of the mind, therefore, which constitute the marrow of all true education, can never be effected in the student through a mere acquaintance with the books taught; men so brought up are too often deficient in elasticity of intellect; their minds have no spring; and they are wanting in that moral quality which breathes life and vigour into all the intellectual faculties. Unhappily in India, instead of infusing into students such an ingenuous and noble ardour, as would not fail to make many of them great and renowned men, the system of cramming them with a bundle of dry facts, for the purpose of procuring them success in the University Examinations, is inordinately common; and, notwithstanding its own rankness and the clarion protests of men like Mr. Mark Hunter,* is still alarmingly on the increase. The recent controversy in the Bombay Gazette, on the appointment of the professors of affiliated colleges to the various university examinerships, mainly turned upon the modern tendency of students to cultivate a quick superficiality of intellect and to ultimately close with a *tabula rasa.*

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* *Vide* "The Indian Journal of Education," Madras, circa February 1898.

A man may be a good scholar, but have a lazy imagination. There are many students who have passed moderately well at the University Examinations, but who seem to be utterly helpless for the purposes for which they have been trained. Students who have accumulated a knowledge of facts only, must not make the general mistake of thinking that they are educated. The most melancholy exhibitions of wasted lives are found among those men of learning, who are not men of thought. A scholar, a mere scholar, that and nothing more, is like a man who has accumulated guns, powder and bullets, which are useless until he has been drilled and trained to their use. The great history-makers of the world in peace and war, in art and science, have been men of fine imagination; and nothing so much conduces to a vigorous imagination as a study of the English poets from Chaucer and Shakespeare to Keats and Tennyson; for literature, unless it be regarded as mere contents for bottling-up in the memory, is indeed a great mental tonic.*

Having said this much about school-education and its essential requirements, we must now pass on to a narrower and more practical branch of human training, namely, technical education. Mr. Ruskin says: "It is only by "labour that thought can be made healthy, and only by "thought that labour can be made happy; and the two "cannot be separated with impunity." The efficiency of technical education in England is the ground-work of the subject in hand. Her numerous technical schools annually sent forth into the working world, a large number of intelligent men. Some of these, notwithstanding the severe conflict and keen competition of modern times not infrequently grow to be the captains of industry; the rest are always able to earn a decent living, for intellect and industry being never incompatible, they, by their union, greatly conduce to human comfort. India, on the other hand, finds not a few suicides among her unemployed, and countless waiters upon Providence, but few men of active genius. India, in fact, has a great—almost a stupendous—task before her, if she dreams of emulating her rulers. As matters stand now, the extraordinary acumen of the English finds its counterpart in the almost monumental indifference—if we may so term it—of the Indian intellect in regard to industrial training.

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* Prof. M. MacMillan's Lecture at the Sassoon Mechanics' Institute, Bombay, on Wednesday evening, Jan. 19th 1898: "Literature as a Mental Tonic."

The singular combination of the gifts of nature, with the benefits of sound education, and the mutual development consequent upon it, have proclaimed the English *facile princeps* of all the nations of the Globe; it is they who at the present day stand unequalled in pluck, audacity and even good nature. Good nature is a qualification so peculiar to the English that, as a great writer observed, "there is no word for it in any other language." As to their initiative skill, it must be said, that a French scientist, astonished by England's rapid progress in science, and hesitating between his own feelings concerning audacity and Plato's depreciation of it, burst forth with the sudden exclamation: "Surely their audacity is the best half of their genius." The most important trait, however, in the English character remains still to be considered. The English temper refuses to accept custom, ceremony, or authority, unless founded on reason and commonsense. From infancy, the literature and poetry of his country have inculcated in the Englishman's mind the necessity of commonsense; and there is something higher even than commonsense—namely sagacity—that vitalizes their blood. When Mr. G. W. Roughton in his letter to the *Times of India* of the 25th March 1898, expressed, among other things, his self-conviction that "where the work is done by European agency, the plague can be throttled," the debating society of the students of a certain native high school in Bombay was so struck at first with the boldness of the assertion, that, overlooking everything else—even the main object of his correspondence,—they, with patriotic emotions, set themselves to vindicate the powers and abilities of their own country-men, and thereby to claim for their work an equal success with that of their rulers. But after two or three hours' lively interchange of opinions, they unanimously admitted that the English can never be approached by the natives in pluck and sagacity. But "why not?" it was beyond their power to discover. No stupid caste-restriction impedes the Englishman in his work: nor can he long—and much less in such times as those of plague—be tied down by selfish codes and rules. It is doubly strange that India, notwithstanding the great liberty she enjoys, and notwithstanding the irresistible attractions she offers to enterprizing genius, should still rank so low in the scale of the world's civilization. Every true-bred Indian fervently longs to see her styled, like

England, "the cradle of heroes, the school of sages, the "temple of law and the bulwark of public honour."

When, however, there is hope, let there be also endeavour and caution; and let those Indian patriots who are now engaged in promoting the education of their country, look for their sole reward in the knowledge that they are, by their benevolent deeds, promoting the happiness and prosperity of their fellow-country-men, doing their holiest duty to humanity, paying the most loyal homage and giving the greatest glory to their benign sovereign. Let them, moreover, by the education of the young, arrest that cause of past neglect and ignorance, of which the present gaols and workhouses are terrible monuments; and, finally, let them cherish hope, as

> " Of all ills that they endure
> " The only cheap and universal cure."

The Total Solar Eclipse of 1898.

BY K. D. NAEGAMVALA.

(*Concluded.*)

THE explanation of the dark lines of the solar spectrum sent a thrill of enthusiasm through the breasts of astronomers. The free lances of science untrammelled by official routine at once took to this most powerful instrument of research. With the key thus forged by Kirchhoff, they could lay wide open the most distant mysteries of the heavens. Among astronomers Rutherford, Secchi, Miller and Huggins were the first to take advantage of this new method, and they were closely followed by Janssen and Lockyer. Important discoveries in Chemistry and in Astronomy were soon made with the help of the prism, and it was natural therefore that a concentrated spectroscopic attack was devised in anticipation of the next eclipse. This attack was delivered with marked success by English and French astronomers on Indian soil on 18th August 1868. The prominences had been proved to be of undoubted solar origin in 1860 by the labours of De la Rue and Secchi and their fantastic shapes and flame-like structure led solar physicists to believe that they were composed of burning *gases*, but direct proof was wanting. The prominences were examined at the eclipse of 1868 with the spectroscope and were found to consist mainly of hydrogen! But this was not the only success achieved on this memorable occasion. A direct application of the disclosed fact led to a method of observing the prominences in full daylight. Indeed when Janssen saw the hydrogen lines in the prominence-spectrum he cried out with Gallic fervour "O you lines! I shall ever worship you!" and he put the method into practice the very next day at Guntoor, and, as far as the prominences were concerned, for him that day and every succeeding day was a long eclipse.

The history of the discovery of the principle and its application is a very interesting one. In 1866, Sir Norman Lockyer had publicly put the following question—however, without giving any answer to it:—"May not the spectroscope afford us evidence of the existence of the red flames though they escape all other methods of observation?" And he had immediately afterwards given orders for the construction of a large spectroscope. Early in 1868 Huggins published the probable method of observing the prominences in full sunlight which he had unavailingly pursued during the previous two years, He wrote: “The invisibility of these objects at ordinary “times is supposed to arise from the illumination of our “atmosphere. *If these bodies were gaseous their spectra “would consist of bright lines.* With a powerful spectro“scope the light reflected from our atmosphere near the “sun's edge would be greatly reduced in intensity by the “dispersion of the prisms, while the bright lines of the “prominences would remain but little diminished in “brilliancy.” He was, however, unsuccessful in his attempts. On the day after the the eclipse Janssen applied this principle; he swept the limb of the sun with his spectroscope, paying undivided attention to the region where the red line of hydrogen occurs, and saw the bright line extending beyond the disc of the sun; the ever varying length of the line gave him the height of the prominence. When the news of the gaseous character of the prominences reached England, Lockyer hurriedly directed his still incomplete spectroscope to the sun and immediately succeeded in obtaining a piecemeal view of the prominences. The report of his later achievement reached the Academy of Science on the same day as the report of Janssen from India; the double announcement was received with acclamation by the assembled academicians, and Napoleon III. caused a gold medal to be struck bearing the effigies of the two astronomers in commemoration of the event. Huggins, just recovering from a heavy domestic affliction on December 19th of the same year, looked at the sun with the same spectroscope that he had vainly used before and recognised the existence of prominences round the limb of the sun by their lines. It has been well remarked that “to perceive a thing known to exist does “not require one-half the instrumental power or acuteness “of sense as to discover it.” This original method of recognising the existence of prominences by the varying lengths of the hydrogen line is now one of the easiest applications of the spectroscope in astro-physics. However the method was not complete. A prominence could be thus observed piecemeal; each little line might be drawn to scale on paper, and the whole thus built together would give the shape of the prominence. But it soon afterwards suggested itself to Huggins to widen the slit of his spectroscope, to admit at a time something more than the thinnest slice of a prominence into his discerning train of prisms; he could thus observe much larger portions of a prominence all at once, and with a sufficiently widened slit a whole prominence could be taken in altogether. This method of examining prominences is the one now universally employed in all Solar Observatories. Much light has since been thrown on the composition of these prominences, but it is not essential to enter into details for the purpose of this story. It may be remarked in passing that some unique observations have been secured by the Poona party in this line at the last eclipse.

Two other important problems remained unsolved in 1868. If Kirchoff's theory is correct then the dark lines of the solar spectrum are caused by a selective absorption exercised by comparatively cooler gases on the radiation from the central core. How these gases are located is a question requiring an answer. Moreover what is the corona, what is its silvery light due to? In the thirty years which have elapsed since the spectroscope was brought to bear upon solar problems, great advance has been made in collecting facts on these two points, but we have not yet arrived at a final solution of either problem.

Here, anticipating some of the facts about the constitution of our sun, we may follow Professor Young in representing the sun as composed of an inner nucleus which is not accessible to observation and about which therefore we know nothing; outside it is the white sphere surrounding it, called the *photosphere* in which the sun spots take their birth and where the faculæ are generated. Whatever be the temperature of the inner core, here on the surface the heat already transcends that from all known terrestrial sources. Its telescopic aspect and other considerations lead us to believe that it is mainly composed of cloud-like forms of some of the most refractory substances on earth, such as carbon and iron. The movements of the faculæ and the changes taking place in the spots have led Huggins to assert that this photosphere is "the seat "of ceaseless convulsions and outbursts of fiery matter. "Storms of heated gas and incandescent hail rush upwards, "or in cyclones, as many miles in a second as our hurri-"canes move in an hour. Dante's and Milton's poetic "imaginings of Hades fall far below the common-place "scenes at the solar surface." The comparatively cooler gases (though among them are the vapours of most of the metals known to us), which cause the "reversals" or "dark lines" of the solar spectrum, lie somewhere next to this photosphere. Then come the prominences, their roots firmly imbedded in the *chromosphere*, a layer, 4,000 miles in thickness, of the very gases forming the prominences, and surrounding all this is the extensive "mysterious radiance of clouds, rifts and streamers" called the *corona*.

Just as we can observe prominences in full daylight by exploring the space immediately outside the limb of the sun, so we can also examine the chromospheric layer, the heights of the bright lines indicating the varying depth of the layer. No such method has, however, made the presence of the "reversing-layer" evident; indeed so great a student of solar physics as Sir Norman Lockyer does not believe in its existence. But let us see what evidence a total eclipse affords for or against it. In the classic experiment of Kirchhoff, the interposed burning sodium vapour produces a black band in the otherwise brilliant spectrum of the lime-light; if we, however, screen off the lime-light the prism gives a *yellow bright* band on a dark background in the exact position in which the dark band in the yellow formerly existed. At a total eclipse of the sun, the advancing moon, just before complete totality, leaves an excessively thin small crescent of the sun's limb still exposed to view. If at the critical moment the spectroscope is directed exactly to that point, the light of the inner nucleus and photosphere being thus screened off from view, the comparatively cooler but still bright and shining gases must make their presence visible by a flashing out of bright lines in the places formerly occupied by the dark lines. Kirchhoff's experiment would thus be repeated on a grander scale. But in the case of the sun, the ever-advancing moon would blot out the thin bright crescent in a second or two; the bright lines could only therefore flash out momentarily. Now this was exactly what Young for the first time observed in the eclipse of 1870, and this observation has been fully confirmed at subsequent eclipses. The very short duration of the phenomenon, however, made it impossible to affirm with any certainty that in the *flash* there was a complete reversal of all the dark lines into bright. Since 1870, while, on the one hand, Young has contended that the flash-phenomenon proves indubitably the existence of the *reversing-layer* next the photosphere, Lockyer has maintained an exactly opposite opinion. Photography was successfully brought to bear upon the question, when, under the instructions of Lockyer, Shackleton, at Novaya Zemlya, in 1896, for the first time successfully caught the spectrum of the flash on the photographic plate, and in the eclipse of January last the same result has been achieved with much greater success by at least four parties. The discussion of these photographs will, no doubt, throw much light on the question whether the comparatively cooler vapours beyond the photosphere form an atmosphere somewhat like our own, or, as Lockyer contends, whether these vapours are distributed at different distances around the sun in exact proportion to their ability to withstand the transcendental solar temperature. Though, on the one hand, Sir Norman Lockyer is positive that the want of an *exact* coincidence between the bright flash lines and the dark Fraunhofer lines, and other circumstances go to disprove totally the existence of the reversing atmosphere, on the other hand Young, and, still more recently, Johnstone Stoney, have shown that an exact coincidence is not to be expected, and that the evidence is all in favour of such an atmosphere. It is but only fair here to remark that for one astronomer of eminence siding with Lockyer on this most interesting question, there are ten who are opposed to him. This fundamental question of Solar Physics still remains unsettled, and in future eclipses the efforts of astronomers will in no little measure be directed towards the elucidation of the point.

But what about the corona, the glory which lends such enchantment to the event? Its vast extensions and its ethereal tenuity, through which planets and comets can pass undisturbed, leave no doubt that the matter composing it is of extreme rarity, unattained here by any laboratory means; yet there is substance enough in it, for it to shine with its own light and to reflect from its surface the light of the sun. Moreover a gas of extreme lightness pervades its mass. This the spectroscope has already revealed.

Though the gas *coronium* has not yet been run to earth, the romantic story of *Helium* gives hope that the chemist and the physicist will not long leave it undetected.*

The corona undoubtedly extends in long streamers to inconceivable distances in various directions. Langley, in the serene atmosphere of Pike's Peak, traced some of the streamers to the extraordinary distance of six times the solar diameter, or more than ten million miles, on either side of the sun, and the ever-unerring photographic plate has since recorded them. What originates this wonderful corona? Numerous theories have been suggested, but none has yet given a satisfactory answer to the question. The shape and extent of the corona varies with the periodic changes in the frequency of the spots; this has led Schacherle to propose his "mechanical" theory, and the corona is supposed to be formed of matter ejected from the sun in lines normal to the surface, this ejection being most active near the centre of each sun-spot zone, and he has lent support to his theory by ingenious mechanical models imitating the various types of the corona. Bigelow, on the other hand, suggests an electro-magnetic origin, and Pupin has performed some wonderful experiments in vacuo, closely imitating coronal forms. Indeed, it is a question absolutely undecided still. Professor Young sums it up by saying that "orbital motion, solar attraction, atmospheric resistance, and actions thermal, electrical and magnetic are probably all combined."

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* This was written in July, before the announcement of the discovery of *coronium* in some subterranean gases by three Italian spectroscopists.

If the corona is of solar origin, and there are numerous reasons in support of this supposition, then, indeed, it should participate more or less with the sun in his rotation. This test of the solar origin of the corona was suggested by Huggins in the Bakerian Lecture of 1885, and its experimental verification was first attempted by DesLandres in 1893, and repeated by two astronomers this year. Here again the spectroscope promises to come to the help of the inquirer. It is by the application of the most beautiful 'principle of Doppler' that success can be achieved in this direction. The principle is this. In all cases of wave-motion the effect produced must depend upon the *number* of waves which reaches the receiving station in a given time; this number increases if a source of sound, for instance, is approaching and diminishes if it is receding away from us. This causes the gradual *shrilling* of the whistle of a locomotive, as it rushes past a station, and the subsequent lowering of the *pitch* as the locomotive recedes further and further. The change in the musical gamut thus produced can be repeated with light. In a heavenly body moving away or towards us, the 'light-gamut'—the spectrum with its attendant dark lines—changes, and by measuring the extent of the change the velocity of a heavenly body can be calculated, just as the rate of speed of the engine can be calculated in the other case. This beautiful principle was first successfully applied in the case of stars by Sir William Huggins in 1868. Astronomers of repute, however, for sometime looked askance at it. "They heard my "words," says Huggins, "but for a time were very "slow to avail themselves of this new power of research. "To them I was 'as a lovely song of one that hath "a very pleasant voice.'" But the method has since been fully justified in its results. The spectroscope successively applied to the receding and approaching limbs of the sun thus reveals his rate of rotation round the axis, and the corona similarly examined on the eastern and western sides ought to disclose its rotation also.

Such is the state of our present knowledge of the sun. It was to help in the elucidation of the problems still unsolved that England, America, and Japan sent their astronomers to us in January last.

Before concluding this article we will shortly review the work each party aimed at; the full measure of success achieved by each cannot yet be gauged.

Pre-eminent among them, befitting his position as the leading solar physicist, was Sir Norman Lockyer with his party of 150 assistants at Viziadrug. He succeeded in photographing the "flash"—the "reversing-layer"—showing thousands of bright lines in its spectrum, and secured highly successful spectroscopic images of the corona.

The structure of the corona can be best judged on a large-sized image, and the Astronomer Royal at Sadhol devoted his energies to securing such photographs. In the Royal Warrant of appointment of 1674, the first Astronomer Royal was directed forthwith to apply himself with "the most exact care and diligence to the rectifying the "tables of the motions of the heaven and the places "of the fixed stars, so as to find out the so-much-desired "longitude of places for the perfecting of the art of navi-"gation." True to his official position and duty as laid down in this ancient warrant the Astronomer Royal also secured a series of valuable observations for determining the errors of the moon's tables. His companion, Prof. Turner, re-investigated by a novel method the polarization of the corona.

At the same Station the Government Astronomer of Madras took large-scale photographs of the sun, and carried out other spectroscopic researches. In the Central Provinces, Hills and Newall worked with various spectroscopes; the former obtained rare spectra of the eclipsed sun, and the latter attempted, though unsuccessfully, to detect the rotation of the Corona. The Astronomer Royal for Scotland, a few hundred miles beyond, also secured valuable results. At Talni, in the Berars, Evershed caught the "flash," and, as he believes, succeeded in obtaining strong evidence in favour of the existence of "Young's atmosphere." Maunder, from Greenwich, with his talented wife, at the same station obtained unprecedented success in recording the extensions of the Corona, and by a fortunate use of a special brand of plates secured the first evidence of the possibility of photographing the Corona outside the total phase. At Jeur the Japanese astronomers vied with the representative of the Lick Observatory in obtaining photographs of the Corona on a large scale. The "Mechanical" theory of the Corona had its inception at the Lick Observatory, and Prof. Campbell devoted his great energies specially to obtaining successful pictures of the eclipsed sun for subsequent careful scrutiny by his colleague Schacherle. The spectroscopic results of Campbell are not yet known. The ingenious Burckhalter made fairly successful attempts in the same neighbourhood to obtain at one single exposure a well-balanced picture of the whole Corona, and the Poona party, under the present writer, obtained photographs of the "flash" on the same scale as Sir Norman Lockyer, secured proof of a distinct difference in constitution between the Corona and Prominences, and obtained evidence of some hitherto unsuspected substances in the latter.

The sum-total of the addition made to our knowledge of Solar Physics in January last can only be estimated after the records secured are carefully and patiently scrutinised, but, compared with the last successful eclipse of 1893, distinct advance has undoubtedly been made in more than one direction. May the results in 1900 be as much in advance of those of 1898 as these are of those of 1893. It is thus alone that knowledge advances, so that "with the glory of so goodly sight the hearts of men may lift themselves up higher."

Firdusi.

(*Contributed.*)

FIRDUSI stands unique among the poets of Persia. Apart from all other charms, the felicitous flow of his style and the melody and the spirit of his verses have endeared him to all Persian readers. To the Parsees he ought to be specially dear as being the only immortal monument wherein the glories of the ancient Parsee monarchy are enshrined. There is no other literary work, written by Parsees or Mahomedans, that presents such an undying record of the old Iranian empire, in words the sweetest and the most mellifluous of their kind.

Firdusi's "Shahnameh" is known to and read by all lovers of Persian. It is the delight of the school-boy, the inspiration of the youth, and the solace of the aged. It is the national epic of Persia, and stands in the same relation to the land of Rustom and Faredun as the Iliad and the Mahabharata stand to Greece and India. It differs from the last two epics in being a consecutive history of ancient Persia from Kaiumarz to Yezdezerd, the last monarch of the Sassanyan dynasty, when the Persian empire passed over to the Arabs. It seeks to tell the story of the rise and progress of Persia from the remotest times to the seventh century of the Christian era. Unlike the sister-epics it invokes no gods or goddesses to interfere with human affairs. It is the story of mortal heroes who lived and moved among 'mortal men.'

In order to tell his story of generous spirits, who fought and died for their country, the best and the most comprehensive form of the poetic mind was needed. It was found in the god-gifted son of the gardener of Tus. Leaving his native town owing to the oppression of the governor of Tus, Firdusi—a mere beggar in outward appearance—started for Ghizni, which the great Mahmud had made a literary forum. Being introduced to the court of Mahmud—the great patron of knowledge and learning—he won the applause and the approbation of the famous poets of the day who adorned Mahmud's court, as well as of the King by his thrilling account of the contest between Rustom and Isfandiar, and was immediately entrusted with the herculean task of composing the world-renowned epic. Firdusi remained at court for a number of years, till the completion of the "Shahnameh" and the consequent quarrel with the King on account of the breach of his royal promise forced him to quit Ghizni in indignation, leaving the famous satire on Mahmud in the hands of his favourite slave, Ayaz. Old and feeble as he was he passed a wandering life from one court to another (where his friendship was sought), and died some t after of a broken heart in his native town.

Since his death the "Shahnameh" has been the je most of price in the treasury of Persian Literature. Intersp ed with the stirring accounts of wars and battles (of w there is no lack in the poem), are the moral and ethical trines expressed in verses that have become proverbial in sian literature. In the "Shahnameh" Firdusi says a g deal about death, the transitoriness of worldly things, the struggles that man undergoes in this life. t fel full force of Shakespeare's words—

> We are such stuff
> As dreams are made of, and our little life
> Is rounded with a sleep.

Besides the chief characteristics that mark off from ordinary writers, namely, the melody and rhy the words, the wide range of expression, the perception of nature, humour and pathos, and, more all, the imaginative eye that adds to his descriptions e consecration and the poet's dream,' Firdusi possessed the versatility of Shakespeare. The Homeric flow of heroic speeches, the tender and musical murmur of love-sick hearts, the drunken revelry of Bacchanalian festivals or the plaintive sobbings of a widowed mother find their full expression in the epic. The murder of Eruch, the son of Faredun, by his two brothers, the passing of the childhood of Zal (the father of Rustom) on the Alburz mountain, the combat of Sohrab and Rustom (this last has found its way into English literature through the beautiful poem of Matthew Arnold) are among the finest episodes in the world's poetic lore—

The following is a translation of Sohrab's last words to the champion, who wins the victory over him and whom he does not yet recognise to be his father.

> Alas! here cease my troubles—war and fight;
> I die expectant of a father's sight.
> Yet know, whatever guise thou dost assume,
> Nowhere shalt thou escape th' impending doom.
> Be thou a fish in watery realms obscure,
> A moment's life thou scarce canst there endure;
> If cowardlike now fliest earth afar,
> In plains ethereal to dwell a star,
> So soon as he—great Rustom—comes to know
> My bones lie bleaching on the naked snow,
> Dart will he forth, pursuing far and near,
> Till in thy blood he stains his conquering spear;
> Of all these chieftains one will surely dare
> Convey the fatal news to Zabul there,
> That Sohrab fell beneath the foeman's blow,
> And wish'd that father whom he'll never know.

R. B. V.

"Reform."

[*Contributed.*]

So the policy of 'out-door relief' has once more carried the day, and another nail has been hammered into the coffin of the University's prestige! The scheme drawn up by the Hon. Mr. Ranade's committee has obtained the sanction, not, one need scarcely say, of the University, but of a considerable body of its own supporters, who temporarily constituted an accidental majority of the Senate. That such a majority was obtained at all reflects credit on no one, least of all on the European fellows. Of the latter, many from general supineness absented themselves altogether, and many from an inordinate regard for their carnal appetites deserted their posts after but the second stage in the proceedings was passed, while, on the other hand, the victors showed a not unnatural, but still, under the circumstances, almost indecent, alacrity to profit by the tactical disorganisation of their opponents. The action of the one side was as wanting in generosity as that of the other in public spirit. The Europeans might at least have waited to see whether one or two of the amendments still to be put had not in them the promise of better things than the crudities exposed to public view in the substantive proposal. The supporters of the committee's scheme should in any case have afforded a more considerate hearing to Professor Müller's suggestions, even if they would not—as we think they ought to have done—consent to an adjournment.

No doubt it will be said that the proceedings of the Senate are not those of an academical debating society, and that the methods of the Oxford and Cambridge Unions would be out of place among the practical men to whom is entrusted the guidance of the Bombay University. But those who insist on introducing into these affairs the tone and practice of party politics, or the verbal quibbles and formal niceties of the law-courts, seem to forget that elsewhere the deliberative assembly of an university is not usually considered to be a fitting arena for a display of the gymnastics of debate or for the exhibition of forensic fireworks. Still less is it a Tom Tiddler's ground where would-be inheritors of unfulfilled renown may roam at will, appropriating the glistering gauds of a tinsel notoriety. Fain is one to hint—absurd as it will seem to many—at another and (one would fondly hope) a higher ideal, the good of the University as a whole. In all seriousness, cannot we lay aside these miserable affectations of parliamentarianism and legal formality, and in the friendly spirit of reciprocal concession consult for the benefit of that institution which we all profess to serve? When the European community can be brought to understand that the Fellowship of the University means something more than a sop to political Cerberi, or a consolation prize for those who have been crowded out of the honours list, and that it entails duties not wholly imaginary or ridiculous, and when our 'Aryan brothers' of all denominations realise that the University itself was not solely intended by a beneficent Government as a convenient safety-valve for suppressed declamation, then, and then only, will this consummation be possible.

But let us come to the *corpus delicti*, the scheme drawn up by the committee. In the first place, we note that it is signed by several respectable personages of assorted professions, but by not a single head of a college. In fact, on the whole committee is there an individual who can claim to be an expert in the science of university methods and constitutions? Granting that one perhaps is not quite ignorant of the matter with which all undertake to deal, we cannot but proceed to emphasize the significance of that which is the next most conspicuous feature of this board, the utterly inadequate proportion of the genuine educational element, *i. e.*, of persons who, not content with merely talking about education, can and do educate. And those selected, what had they done that gods *nimis faciles* bestowed on them the doubtful honour of a distinction so invidious? Equally remarkable is the list of those who politely declined the honour, comprising, as it does, two eminent professors and a distinguished member of the Syndicate. What, one wonders, would be thought in England of a commission that not only could enlist in its ranks but a single expert in the subject with which it dealt, but that even studiously and ostentatiously avoided consultation with all other experts? One cannot imagine that, even among the outside public there, the lucubrations of such a body would command much respect. Yet, here in Bombay apparently the naive delusion that educational and university affairs are aery nothings, which any person gifted with a little superfluous leisure and more superfluous ingenuity can dispose of comfortably in the intervals of really important work, still thrives and bears a vigorous, if baneful, fruit.

In the second place, if the letter's 'clumsy wording' (the phrase is that of a member of the committee) did not of itself betray the inconsiderate haste with which the light-hearted innovator had tried his 'prentice hand, the many mistakes and omissions in the drawing of the scheme would be more than enough to prove it. An elementary acquaintance, indeed, with English grammar suggests that 'I' is hardly the fitting pronoun to denote a plurality of eight, but why should it have been left to the sorely-taxed penetration and patience of an indefatigable Vice-Chancellor to solve the conundrum involved in this unconscionable 'ego,' and by an admirable exercise of analytic skill to discover that by the evasive pronoun was intended neither the united committee nor Mr. Banaji singly, but (of all people in the world) the Registrar? Of omissions the most unpardonable was that revealed by the pitiless search-light of Dr. Hatch's sarcastic criticism. In a scheme of examinations drawn up by practical men of affairs for the direction of the mere educationalist it *is* a little surprising that no account should by taken of surgery. Has the cruel-kindly light of that art never flashed across the orbit of their practical experience? *Felices ter et amplius*! Possibly that is the reason why they seem to have adopted as their motto an inversion of the old Roman salutation, and murmuring "*Si ego valeo tu quoque vales*" to have deemed it unnecessary to provide for the teaching of that which they did not themselves require. Or, perhaps, they argued on evolutionist lines, and concluded that surgery need not be taught, since the instinct of self-protection innate in the species must spontaneously evolve an automatic process of natural therapeutics. Their critic sincerely trusts that none of them will ever be abandoned to the tender mercies of such a 'process.'

For the rest, in the grouping, such as it is, an investigation will discover little or no serious principle or systematic plan. In the P. E., English is grouped with the 'Second Language: why? In the B.Sc. it stands alone; again, why? One had fondly imagined that a knowledge of English was held of paramount importance in this University, but under the new regime that is evidently no longer to be the case. Thus in the P. E., apparently, supreme excellence in Hebrew or Pehlevi may compensate for blank ignorance of English? At this rate, if certain suggestions as to the vernaculars had come into force, we should find that, instead of a decent competence in the language of Shakespeare, the examiners would be expected to accept a garrulous facility, say, in Parsi Gujerati! The writer may be pessimistic: there may be a subtle thread of union running through the *disjecta membra* of this egregious classification, but it is too subtle for his vision to arrive at. Marks, some one may suggest, form a clue to the combination. Perhaps so, but nothing is stated to that effect. The whole question of mark assignment (which, under such a system, surely needs modification) is left practically untouched. Nor can homogeneity be the basis of this grouping of subjects: the Committee indeed have themselves admitted as much, though with their wonted but unwarranted optimism, they "anticipate no practical difficulty." What has mathematics to do with history, or English with Arabic? And why should not history in the P. E. go with English as readily as with mathematics? Such an arrangement would at any rate prevent English from being swamped by the Second Language, but possibly this result would not suit the draughtsman of the scheme:—

"Sic libuit vano qui nos distinxit Othoni."

So much for this ill-considered innovation. The writer has carefully refrained from discussing the general question of which it was an outcome, but there are one or two special points to which he would like to draw attention. Firstly, the group system is not necessarily bad in itself, but, to be made effective, it requires very careful arrangement by experts. Secondly, the method of marking, which prevailed under the former system, will need revision. And the question whether a certain aggregate of marks obtained in a group, or a necessary minimum in each subject of the group is to be the passing limit must be fairly and squarely threshed out. Thirdly, is the new piecemeal method of passing to admit the candidate to honours? The enquirer sincerely trusts not, but he is well assured that this will be the next concession clamoured for. And therein lies the danger of the whole of this process of so-called reform. Where and when is it to stop? If one could be sure that it was not merely undertaken for the sake of helping lame dogs over very exiguous stiles, there would be less ground for alarm. But the ways of error and the needs of weakness are infinite, and the daughters of the horse-leech are not reported to have ever stinted their demands, however great the sums they had exacted from their patrons. Fourthly, analogies with British Universities are, as Mr. Hathornthwaite pointed out, fallacious. Grouping is not adopted at Oxford or Cambridge in the Honour Examinations, and when introduced into the pass tests, it was accompanied by an increase in the matter to be studied. Now in Bombay we have *no separate Honour Examination*; hence, in ordinary fairness to the brighter and more industrious students, we ought not to bestow the same rewards on those who slowly blunder on from group to group as on the more active intellects, who can take them all in their stride.

But it would be far better if we could once and for all get rid of this unsatisfactory method of dealing with such matters. This relief might be effected if, instead of a casual Committee constituted on haphazard lines, we had (as most other Universities have) *a permanent Board of Studies*. Such a board should be appointed by the Syndicate and be composed of eminent teachers selected from the Colleges and chief schools of the Presidency, and also of a smaller number of members of other professions, who may be recognised authorities in certain subjects, and who have held University examinerships. A body of this nature would be fully competent to deal with such matters as that now under discussion, and could hardly achieve less satisfactory results than the present Committee has done. Further, it would take into its consideration the books prescribed or recommended for the University courses, and, not being a temporary and fortuitous conglomeration of jarring atoms, it could keep itself well abreast with the tide of current literature. Books might be forwarded for its notice by the various publishing firms; useful or likely ones could be noted and ultimately selected, and such volumes would constitute a welcome addition to the University Library. Under the present system of a quinquennial revision of text books, there would be ample time allowed for the reviewers to digest the materials furnished, and to discover and compare the merits of rival works. It might, however, be advisable to reduce the quinquennial period. Thus we could hope to weed out some of the many obsolete text-books, and pseudo-authorities that still disfigure the pages of the calendar.

Another labour of love which may be recommended to our Board of Studies, would be a reconstitution of the Wilson Philological Lecturership, with a view to extracting from it a larger amount of solid advantage to the University than is at present obtained. From no fault of the distinguished scholars, who have hitherto held the post, the mass of the students has gained very little benefit from these lectures. The true reason, of course, is that they do not feel interested enough in the subjects to attend, and the ground of the lack of interest is the fact that these lectures have no connection with the examinations. Let a paper on the outlines of general philology be introduced into the M. A. and B. A. examinations in union with the papers on languages, and let an annual lecturer be appointed to deliver, say, eight lectures (4 a term) on the general principles of philological science, as illustrated by the chief classical languages. The lecturer might be appointed under the same wide limitations as at present, and he should be required to lecture in the University Hall at a time convenient to the majority of his hearers. In this way the University would become a true teaching institution, the benefits of the Wilson Foundation would be both concentrated and extended, and the standard of scholarship, which in regard to such an important subject as philology is deplorably low, considerably raised.

The School System of Germany.

(Concluded from the August number.)

THERE are to-day in Prussia two classes of *Realschulen*—Latin and non-Latin—or, as they have been named since 1859, *Realgymnasien* and *Realschulen*. In South Germany, and more particularly in Würtemberg, the Real Gymnasium sprang from the Gymnasium itself. In the South German institutions pupils who omitted the Greek course were formed into classes in which English, mathematics, and physics were taught. In 1867, these classes were separated entirely from the *Gymnasium*, and became the nucleus of a distinct institution.

As a result of this development, the secondary schools may be divided into three classes, *viz.*, *Humanistische Gymnasien*, *Realgymnasien* and *Latein Realschulen*. This division is undoubtedly advantageous, as it prevents uniformity. Regarded from a practical point of view, however, it is not without serious drawbacks. To cities of medium size, the maintenance of three distinct school organizations was a great expense; also, with these conditions, the selection of a proper school was frequently a matter of considerable difficulty. For this reason, the formation of a "unified school" was suggested; and the plan, formulated in Frankfort, providing for such a school, has met with considerable favour in Prussia. This plan provides for a unification of the three above-mentioned divisions of the secondary schools. French is taught at the beginning of the course; while Latin is introduced in the fourth, and Greek in the sixth term. One of the principal objections to the system is the introduction of French before Latin. Whoever recognizes the importance of Latin as a grammatical basis for the Romance languages must necessarily condemn a system which gives precedence to French. The very late introduction of Greek must also be regarded as a serious objection, as it precludes the possibility of acquiring a thorough knowledge of that language. I regard it as a grievous pedagogical error to fatigue pupils of fourteen to sixteen years with declensions, &c. Such elementary instruction is better adapted to pupils of ten to twelve, who might profitably devote one hour daily to this study. Those above the age of fourteen require material of a more intellectual order. As it is, the knowledge of the classical languages is steadily declining; and should it sink considerably below its present level, we shall have a discussion as to its actual utility—except, perhaps, for theological and philological purposes. I cannot agree with those who regard the unified schools as favourable to the classics; on the contrary, I believe their establishment indicates the beginning of the end of the humanistic system. At present the question of the classics is being debated, and the end of the discussion is yet far distant.

As regards organisation, the school is virtually speaking, a union of three, or, strictly speaking, of four systems divided into nine classes. There are, however, exceptions to this rule. The pupil enters the sixth, or lowest grade at the age of nine or ten, and graduates at about eighteen or nineteen. Now, the question arises whether it would not be better to begin the study of foreign languages at twelve, or thereabouts, rather than at the early age of nine. Another and more serious difficulty, brought about by the establishment of the unified school, lies in the question of eligibility to the university. The principal aim of the Humanistic Gymnasium was to enable the pupils to select any of the faculties at the university: the *Realschule*, on the other hand, qualified him for admission to a technical institute only. The graduates of the unified school (Realgymnasium), however, claimed the right to enter either of the above-named institutions; and this right was called into question by the universities. While the latter were willing to admit graduates of the *Realgymnasium* to a course in mathematics, physics, or modern languages, they positively refused to admit them into the medical faculty, for which the diploma of the Humanistic Gymnasium was still regarded as essential. There is a general inclination to the opinion that the graduates of the *Realgymnasium* are, in some respects, better qualified to enter the university than are their colleagues of the Humanistic Gymnasium; for the Realgymnasium affords an excellent preparatory training in mathematics and physics—departments of the utmost value to the student of medicine.

Greek, another important element of the humanistic gymnasium, is no longer regarded as absolutely essential to the student of medicine; it is merely an ornament, an accomplishment. Upon the whole Germans are too painfully particular as to methods, and the educational lines are altogether too precise. Young men, however gifted and thorough, cannot enter upon a professional career unless they have complied with every minute requirement of a long and complicated system. The so-called monopoly of the Humanistic Gymnasium should be abrogated, and there should be a diminution of the excess of formalism and officialism which has crept into German schools.

Another serious drawback of the German educational system arises from the relation between the school and the voluntary service of one year's duration in the army; only those being exempt from the full term of military service who have successfully passed the examination in the *Untersecunda* (sub-junior class) of a secondary school. An arrangement so foreign to educational purposes must necessarily be condemned. It may be useful to the army organization; it may also induce many to attend the secondary school, who would otherwise remain away; nevertheless it must be considered a source of serious injury to the school itself, as it brings into it an element which has but one aim in view—qualification for the voluntary service. Frequently destitute of inclination or ability, these scholars remain throughout a course of six years, *i. e.*, to the end of the sub-junior year, acting as an encumbrance on the other pupils, and tending to lower the standard of instruction. Nor is this all.

It has been already stated that many of the aspirants to voluntary service leave school immediately after the final examination at the end of the sub-junior year. Now this examination, introduced by Prussia in 1891, seriously interferes with the general progress of the school, and particularly affects the four upper classes. The abolition of this law is now universally solicited. When the term of active military service was reduced from three years to two, the belief was general that the institution of the voluntary service would cease to exist. It remained unchanged, however, and the school is still compelled to suffer from the pernicious influence thus exerted.

Here the question arises whether we do not indeed overestimate the importance of our examinations. In this regard, I believe in the axiom, "the fewer, the better." This does not, of course, apply to the *Abiturienter examen* (final examination for the university) which takes place at the end of the full course of nine years. The abolition of this examination has also been urged upon the ground that after all the faculty are the most competent judges as to the qualifications of the would-be graduates. General opinion is in favour of a public examination conducted by a State Commissioner who assumes all the responsibility for the result. In this way the interests of the faculty as well as those of the public are protected; while the students in order to prepare for the examination are compelled to undertake a general review, which must prove of great value to them.

Despite defects, pride may justly be taken in the results obtained by these secondary systems; and the results may be attributed mainly to the excellence of the staff of instructors. The teachers must be qualified for their profession by a university training; and they must comply with the vigorous requirements of a state examination before they receive their diploma. In addition a preparatory pedagogical course is now also considered essential. For a long time teaching was considered as a natural gift,—something that could not be acquired. Recent developments, however, have proved the fallacy of this assumption; and radical reforms are being seriously contemplated. The question now at issue is whether pedagogics can best be taught at the university or at the gymnasium. The majority of the German states have decided in favour of the latter; but a criticism as to the value of this one-year course would at present be altogether premature. It is to be feared that the free development of individuality would be more seriously hampered at the gymnasium than at the university, a fixed belief in the infallibility of some one method being a proverbial characteristic of the former institution.

A deplorable circumstance, which deserves mention in this connection, is the refusal of the Government to give the teachers a salary commensurate with their increased efficiency, and to place them upon an equal footing with the other officials of the state. The solution of this question must, however, be left to the future.

The results obtained in the various departments of knowledge, have, upon the whole, been extremely satisfactory; but the instruction in classical languages has given rise to considerable debate. The very learned manner in which the science of philology is treated in Germany also affects the schools, which are altogether too philological. This difficulty might be removed by instilling into the minds of pedagogical students the importance of the principle of practical utility as opposed to an indefinite extension of a cumbrous and unnecessary scientific knowledge. A more serious evil, however, arises from the constant reduction of the time devoted to Latin and Greek. At first it was thought that improved methods might justify an economy of time entailing a loss of material; but these hopes were destined to be disappointed. It is true that in consequence of more direct methods a little Latin may now be rapidly acquired; but a thorough knowledge of the ancient languages and familiarity with classical literature are the results of long and systematic cultivation. In this respect, public opinion also deserves consideration. The ancient languages are not so highly valued to-day as they were formerly; for the military spirit—which is by no means to be condemned—is in the ascendant. This condition has brought about a general decline of the classics and the day may not be very distant when their very *raison d'être* will be called into question. Such a contingency would be a matter of sincere regret; but whatever ones personal feeling may be, one has to bow to the inevitable.

The complaint has been recently made that the time devoted to Latin and Greek seriously interferes with the study of German and history. Many hold, however, that with the exception of the time allotted to modern languages, every hour spent in school involves a lesson in German. Moreover, the linguistic training obtained by the study of Latin Grammar cannot fail to be highly beneficial also in its application to German. A minute grammatical analysis of the German language is not congenial to German lads; it wearies them and really appears unnecessary. Moreover, nothing promotes proficiency in reading so much as careful and systematic translating. For this reason printed translations are less serviceable than the original Latin and Greek texts.

As regards history, it has been urged that lads should be conducted directly to Sedan and Leipsic, instead of travelling thither by the roundabout way of Thermopylæ and Cairo. As if ancient history did not furnish the very highest examples of patriotism in all its grandeur and simplicity! How unwise it would be to initiate the people at once into the complex political conditions of modern times! It cannot be denied that there was a time when the study of ancient history was too strongly accentuated, yet a thorough knowledge of so important a subject must certainly be regarded as a distinct advantage.

Probably the most important results of the new methods may be observed in the department of modern languages.

Here the synethetic has been superseded by the analytic method. Using the reader as a basis, the pupil seeks at once to familiarise himself with the oral language. This, however, is by no means an easy task, particularly for public of little ability. As regards the phonetic method, this is as yet but sparingly used.

The subject of mathematics, as now taught in the gymnasium, is altogether too exacting, and the pupils are overburdened with material. Less knowledge is acquired in this way than is generally supposed; while the sense of honesty of the pupils is seriously jeopardized—a most unfortunate circumstance, when we consider that the study of the mathematics, apart from its intellectual value, has been regarded as a powerful moral agent.

Natural science is yet taught merely in a general way. This study is fruitful of good results only when it acts as a stimulus to independent investigation and experimenting. This is true of all branches of study, and in this respect the German schools are to be commended, as independent investigation is everywhere encouraged. At the same time the scholastic character must be preserved; and the censure frequently directed against Germans by reason of their exactness of method is really undeserved. There might, indeed, be some justification for this censure, were it not for the freedom and independence of action prevailing at the universities—institutions which are probably unrivalled in this particular. Now the best preparative for this freedom of action may be found in the strict routine of the schools, where the conscientious performance of stated tasks is made a daily requirement. What has been inculcated at school, by precept and practice, is cheerfully and voluntarily performed at the university. What has been said of mathematics applies also to philosophy. This study ought not to be further extended at the gymnasium, since its elaborate cultivation lies more within the province of the university. It is in the latter institution that the future teacher of secondary schools becomes imbued with the philosophical spirit so essential to his vocation.

The present school organization is designed primarily to meet the requirements of a military and official system; nevertheless the question of commercial training is now also receiving serious consideration. As a rule, young men desirous of entering upon a commercial career leave the gymnasium as soon as they receive the certificate qualifying them for the voluntary army service; while those who wish to continue their studies remain until the the end of the course. Naturally, the *Realschulen* and *Realgymnasien* are better adapted to the requirements of these young men than is the humanistic gymnasium. The lack of special commercial institutes, however, is now seriously felt; and it is to be hoped that the plan for the establishment of a *Handleschule* (commercial institute) will soon be carried into execution.

The course for the girls in the common schools is practically identical with that for the boys—with the exception, perhaps, that manual training for the boys has only recently been introduced as a counterpart to the needlework of the girls. Beyond these schools there are also numerous seminaries for the training of teachers. In this respect, indeed, the supply is already in excess of the demand.

Less satisfactory is the picture presented in the higher department of female education. Here the inequality of instruction in the various states is still very marked. Probably the best equipped are the larger cities of Baden: in other localities the conditions are still unsatisfactory. Pupils are admitted into the institutes at the age of six. After passing through ten classes they graduate at the age of sixteen: they are permitted, however, to leave at fourteen, if they so desire. Russia has recently effected a radical change by limiting the number of classes to nine instead of ten as heretofore. This shortens the term by one year—and lowers the standard of female education accordingly. The so-called "voluntary select course" of one year is nothing more than an educational titbit—an inducement to dilettantism. The organization of nine, classes particularly affects those who desire to enter the Teachers' "Seminary." The latter institution still adheres to the old plan, and accepts no pupil under the age of sixteen; consequently the graduate of fifteen must wait an entire year before obtaining admission to it. Such an interval of enforced idleness, at a period when the incentive to study is by no means powerful, must necessarily prove injurious. The "Female Institutes" are mainly private enterprises; here and there they are under municipal control; while in Baden they are principally organized by the State. In consequence of these varying conditions, the institutes are characterized by a pronounced inequality, as regards both the curriculum and the results obtained.

College Correspondence.

DECCAN COLLEGE

In accordance with the directions of the late Mr. Hari Gopal Padhye, the College has received an offer from his executor of a thousand rupees to found a prize. The prize will bear his name, and will be given annually to the student who passes the B. A. examination with Logic and Moral Philosophy as his voluntary subjects, and is the best student of his year in that subject.

THE Havelock English Literature prize has been awarded to R. Watchmaker. The subject was "Froude's Life of Cæsâr."

SINCE July 15th the College has played eight cricket matches, two of which have been won, five lost, and one drawn. The match against Elphinstone College was lost by an innings and 79 runs; that against Grant Medical College was lost by an innings and 32 runs. The Poona Parsees were defeated by 72 runs.

Educational Notes.

A COMMITTEE of experts is said to have been formed (under the order of the Department of Public Instruction) at Poona for expunging objectional words or sentences from the Marathi Departmental Series; it will be a very good thing if the Committee be asked to recast the scientific lessons by using simple expressions for difficult words, which are beyond the comprehension of children.

THE Principal and the Vice-Principal of the Training College of Poona have been asked to translate into Marathi (for the use of the Marathi Schools) Sir William Lee-Warner's excellent little book—The Citizen of India. This is a wise step, indeed.

SCHOOL-MASTERS OF INDIGENOUS SCHOOLS IN POONA.—A representation has been made by the Masters of the different Marathi or Indigenous Schools in the City to the Hon'ble Mr. E. Giles, the Director of Public Instruction, through Mr. R. D. Prior, the Officiating Educational Inspector of the Central Division, soliciting the liberal interpretation of Rule 12 of the Grant-in-Aid Code. In calculating the grant for the current year, they solicit the Department to take into consideration the expenditure incurred by them (Masters) during the last three years, owing to the plague, when the fee receipts failed and the rent of school-houses and low salaries of teachers remained unpaid. We hear that the Director has issued orders for deciding the case of every School in Poona on its own merits; all the items of reasonable expenditure as regards salaries and rent are to be taken into careful consideration.

H. E. THE GOVERNOR is going to preside soon at the Prize Distribution of the Poona Camp Zoroastrian Girl's School. The date will be fixed just about the middle of this month (Sept. '98), as His Excellency is said to be going to leave Poona on or about the 3rd of October next.

NO vigorous effort is made to encourage the Fine Arts Exhibition of Poona since the departure of the Hon'ble Mr. Birdwood; energetic men, like Mr. A. B. Fforde, will, we trust instil some spirit into this matter.

THE results of the Mathematical Tripos are announced. The Senior Wrangler is Mr. R. W. Hudson, St. John's College. Mr. J. F. Cameron, Gonville and Caius, and Mr. J. H. Jeans, Trinity, are bracketed second. Among the women competitors Miss Cave-Brown-Cave is equal with the fifth Wrangler.

The above appeared in our last number with errors, and is now corrected.

AN interesting paper by Prof. M Macmillan, of Elphinstone College, has appeared in the current number of the International Journal of Ethics. He deals with certain points in the moral theories of Schopenhauer and with their relations to the doctrines of Indian philosophy. We hope to notice the paper more at length in a future number of the *Record*.

AT a Conference in connection with the Cambridge University Extension Movement opened in the Senate House, Cambridge, in the early part of July (Dr. A. Hill, Master of Downing, presiding), the Secretary to the Local Examinations and Lecturer Syndicate, gave a statement of some of the more important results of the 25 years' work. He said the movement had now such a hold of the public mind that all the recent universities had embodied in their charters provisions by which work of this kind might be carried on and might be utilized in the university machinery for degrees. The movement reached its highest point in the year 1891-92, when the numbers reached 66,000. The University of Cambridge at the start of the movement met with so great success that there was a large demand from towns for the lectures and the totals went rapidly *up*. Towards the end of the eighties there was a rapid decline. By the passing of the Local Taxation Act money came into the hands of county councils to be used for technical education. The Universities of Oxford and Cambridge made the fatal mistake of attempting to provide an ordinary technical course for the county councils in different parts of the country. The county councils having no machinery to carry on their work, eagerly availed themselves of short technical courses. The demand became so great upon the universities that they were compelled to appoint, without ordinary training and preparation, a number of new lecturers, and the whole work was hurried on in such a way that in a year or two it was obvious that a mistake had been made; and the effect of that was that there was a rapid drop until about a year or two ago. In the last year or two there were signs that an upward rise had set in, and he had no doubt they would repeat the experience of the early seventies. Cambridge itself had been at work 25 years. The total number of persons who had attended their lectures was 221,190; 105,369 had attended the classes, and more than one-third of that number had done regular paper work for the lectures, and a trifle under one-third had obtained certificates. The total amount which had been paid by the local committees for those courses of lectures amounted to £96,156 and to that sum must be added the sums which had been paid in local expenses, which brought the total up to about £120,000. Taking the expenses of the London Society and the figures for Oxford and Victoria Universities, the total would not be short of £300,000. The committee appointed to consider science and art grants last year showed their high appreciation of the value of extension work, and if the Treasury had been willing to grant the small sum necessary to carry out their recommendation it might have been the means of widening the character and the growth of the education which had been provided in different parts of the country under the auspices of the Science and Art Department. They hoped so valuable a recommendation would not be allowed to drop but pushed again and again, and in time the hardness of heart of the Treasury would be softened. The Rev. Canon Moore Ede, one of the founders of the movement, after speaking of the soundness of the system of instruction, referred to what extension had done for the University. In 1893 the Universities were regarded as exclusive, upper middle class, undemocratic, antiprogressive, and there were many who favoured university disendowment and dismemberment. Now all was changed and there were no more popular bodies in the kingdom than the ancient universities, and no one who proposed the reduction or division of their resources would receive a hearing in any part of the kingdom. Hope of success in the future depended on the extent to which continuity of instruction could be secured. A great advance in truly educational work of university extension could be made if some of their lecturers were not so purely itinerant. He contended that if university extension was to build up higher education the office of superintendent lecturer might be revived and its functions extended.

A STATEMENT and appeal in connection with the proposed University in Birmingham, signed by the Lord Mayor of Birmingham and by Mr. Chamberlain was issued lately. After opening with an earnest appeal for liberal donations the document goes on to say: A university in Birmingham is required for three purposes—first, to give the widest and highest teaching to its students, and, through them, to raise the quality and broaden the application of knowledge throughout the community; secondly to assist by its degrees the success attained by students in the college and university classes; and, thirdly, to provide the means of original research, directed alike to the advance of knowledge and to the promotion of the material and industrial progress of the district in which the University is situated. . . . Birmingham is one of the great centres of population specially indicated as the seat of a university adapted to modern requirements, and particularly to those of a great productive district, which, from the nature of its industries, is ultimately dependent on scientific teaching and on the continuous development of scientific discovery for the maintenance of its prosperity and the measure of its progress. In the face of the keen and growing competition of foreign countries, founded mainly on the attention they have paid to the practical as well as the theoretical education of their people, the position of England in regard to her industrial and commercial prosperity can be secured only by the provision of the means which are employed by her competitors, and amongst the most important and most powerful of these means must be reckoned the creation of a university co-ordinating, strengthening, and crowning the educational institutions which already exist. With such institutions the City of Birmingham is already liberally equipped. . . . . All these educational institutions are so graded, and connected with each other, that students are enabled to pass from the lowest to the highest. No barrier of class or creed is interposed. So clear is the road and so great are the facilities afforded that the highest academical successes at the older Universities have been attained by pupils who began their educational life in the elementary schools of the town. In the city itself and within a moderate radius, the population to whom these advantages are open exceeds probably two millions. Then comes a check. Owing to the want of University powers this educational machinery, abundant and highly organized, is incomplete. . . . The time has now come when, as a matter of public duty, and of educational necessity, this condition of things must be brought to a close. The education of our students from the elementary school to the University must be self-contained. It is no daring innovation that is contemplated. Other communities under pressure of similar circumstances have set us examples which have been worked out with success. Birmingham is now the only great town in England which is either not the seat of a university or does not share in the distinction and advantages of a university. . . . The amount of money required to complete the work is estimated at £250,000, to be devoted to the endowment of special professorships, the provision of fellowships and scholarships, the acquisition of buildings, and the cost of administration. The noble commencement already made should assure pecuniary success; at least it assures the means of begining the work, even if we have to wait for a time before it can be completed in every particular.

IN their last report of the School Management Committee of the London Board schools the Inspectors said:—"We wish chiefly to draw attention to the danger that, in some cases, and especially in the higher classes of upper standard schools, more should be attempted than can be well done. Neither educational enthusiasm, nor, still less, the ambition to outshine rival schools, could excuse any attempt to do more than was really profitable to the children." They mentioned classes in which in one case 16 and in another 19 subjects were attempted to be taken within the week; and further on they spoke of the danger of such teaching becoming more pretentious than real, and of the children being overstrained, overcrammed, or bewildered. It was hoped the Board would reduce the curriculum to simpler proportions, as it would be far better to teach eight subjects well than sixteen badly. The first was education, the latter dissipation.

Reviews.

(1) *The Citizen of India*, by Sir W. Lee-Warner, K.C.S.I.—In spite of what we cannot but hold an inappropriate title, this is a most useful little book, and one that we should like to see in the hands of every school-boy and student in the Presidency. But in order to attain its maximum sphere of utility it needs translation into the chief vernaculars, and, if this were done, it would be of great service in counteracting the mischievous tendencies of ignorance, indifference and wilful misrepresentation, the evil effects of which are but too clearly manifest in times of stress or adversity. Thus we cannot too highly praise the chapters on 'Public Health' and 'The Forces of Education' and such sections as those dealing with the suppression of piracy, the extirpation of brigandage and dacoity, the abolition of slavery and, in effect, the whole host of benefits political, social and economic that have been brought about solely by the extension and confirmation of British rule. Complaints levelled against the dogmatic or evasive character of some of the statements seem to us beside the mark. The book is really a *primer* of practical political philosophy as exhibited in operation in a particular country, and its method and aims are not unlike those of Prof. Raleigh's 'Elementary Politics.' To expect a discursive treatment of debateable points in such works would be absurd. The author does not pretend that the present system is incapable of improvement, yet his proper business is not to wrangle over matters of controversy, but so to elucidate the indisputable advantages already gained as to afford his readers guidance and encouragement in their progress towards the goals of still higher attainment.

(2) *A History of England*, by C. Oman, Fellow of All Souls' College, Oxford.—Mr. Oman, like the 'yellow journalist' of our American cousins, is nothing if not up to date. And occasionally—also like the sufferers from *cacoethes scribendi luteum*—in his desire not to be left behind, he ventures to outstrip the judgments of his contemporaries somewhat rashly. Thus we are by no means assured that the last word has been spoken in the case of one Mary Stuart. Yet Mr. Oman has no hesitation in pronouncing her less sinned against than sinning. In the same way he declares the execution of Charles I illegal but not undeserved, whereas we should feel inclined to describe it as probably undeserved but not (under the circumstances) illegal. However, *chacun à son gout*, and we will not quarrel with Mr. Oman on the subject of King

Charles's head. He has done good service in exploding the many fallacies of the Bruce and Wallace legends and in vindicating the character of England's greatest king, Edward I. His history, as a whole, is full of interest and abounds in picturesque touches and new lights, though (as those who know Mr. Oman would expect) it is in his battle-scenes and descriptions of military strategy, tactics and equipment that he more particularly excels. Comprising as it does the most recent results of modern research and possessing a clear and incisive (if somewhat jaunty) style, the book should prove a good substitute for the bland and childlike but exceedingly dull manuals that are too often recommended for the use of junior University students and the upper forms in schools.

THE VICTORIAN ERA SERIES.

(3) *The Free-trade movement*, by G. Armitage-Smith, M. A.—Continental nations accuse us of lacking ideas; the Americans call us effete. And yet, to take the present century only, the British nation has worked out for itself two of the most potent ideas that ever affected the life of man; we mean the abolition of slavery and the adoption of Free Trade. What if neither of these ideas actually originated in Britain? Have they not become original with us in virtue of our sincere and practical adoption of them? Moreover, they are no plants of forced and sudden growth (and this is possibly one reason why the merit of spontaneous originality is denied them), but sturdy shoots, raised perhaps from a foreign seed, but long ago adapted by a gradual process of naturalization to the conditions of the country.

This fact, that our present system of Free Trade is not the result of a modern philosophical fad, but the development of an evolutionary process, forms the cardinal principle of Mr. Smith's invaluable little book. The system has prevailed not because of the impassioned eloquence of corn-law rhymers and the Cobdenites, but because it is the natural outcome of those conditions which have given us both Trade and Empire, and, as such, represent the only natural adaptation to our present environment. It is on these grounds, and these alone, that a perfectly satisfactory reply can be made to the arguments of the Protectionists, who flaunt in our faces the perversity of our own Colonies, the inflated money-bags of the United States and the cheap commercialism of Germany. In his introductory chapters Mr. Smith shows that 'Protectionism' pure and simple was not a legacy of the much-abused and little-understood middle ages, but rather of the 16th and 17th centuries, and above all of the self-styled 'century of reason.' In fact, as we know it, Protectionism is a fungus of exceedingly modern growth, due to wrong-headed notions of true national strength, to recrudescent militarism and to class interests and prejudices. Its theoretic basis stands on such fallacies as the conception of trade as 'warfare,' the persistent belief that money is wealth, the argument that 'infant industries' and 'nascent commerce' need artificial support and so forth. For the clear, calm but decisive way in which Mr. Smith disposes of these 'dangerous deceits,' we must refer the reader to his book. Mr. Smith, however, is sternly impartial; the pestilent effects of trades unions, the demoralization of the British workman which seems to be threatening, and the mulish conservatism of British merchants and commercial agents meet with as severe condemnation as American 'McKinleyism' or the French and German colonial systems. If British trade is to retain its supremacy, our merchants must become more responsive to their customers' demands and our workers must seek to develop not to stunt their powers and methods of production. In education, not in reversion to Protectionism, lies the remedy for the present evils. Educate, educate, always educate—that is the first, the second, and the third essential in all political and economic reform.

We have formed the very highest opinion of Mr. Smith's book, and trust that the University will recommend it for study to all candidates for the B. A. and M. A. examinations.

(4) *John Bright*, by C. A. Vince, M.A., late Fellow of Christ's College, Cambridge.—Englishmen in India are so busy with the work of governing, that 'mere politics' are left to the academic interest of the governed. At the distance of 4,000 miles party and parochial questions lose their vividness and become merged in the more practical problems of the administration of an empire. On these grounds, then, and also perhaps owing to the fact that so large a portion of the Anglo-Indian community still belongs to that "barbaric oligarchy" which Bright relegated to the gorgeous East as a suitable sphere for the exercise of its untamed instincts, the chapters of Mr. Vince's book which treat of Bright the Tribune will be perused with greater interest by the native student of English politics than by the English rulers of the Indian continent. Certainly Bright's obsolete attitude towards

India and the Colonies will meet with scant favour or respect from the 'greater Britons' of to-day.

But it must not be forgotten that Bright represented the vast mass of home-staying Englishmen, *i.e.*, the labouring and petty shop-keeping classes, and that in so far as he conferred benefits upon them, he was after all benefitting England. Few, we fancy, will dispute at the present time that the reforms initiated and carried through by the great tribune have not proved of lasting advantage not merely to a class but to the country. Bright too identified himself with those great movements of which we have spoken in the previous review. He was an ardent advocate of Free-trade and, during the American war, thundered fiercely against the arrogant slave-holders of the Southern States.

Thus, both as a patriot and as a man, he is worthy of a place in our national Valhalla, while, as a social and political force of the first magnitude, his influence is to be reckoned probably superior even to that of his leader, Gladstone, whom he certainly excelled in mere oratory. Bright's oratorical powers are to be ranked next in English rhetoric to Burke's and perhaps are more Demosthenic than even his. At any rate, he possessed the saving grace of humour (which Burke did not) and reached notes of true pathos too delicate for the more sonorous 18th century style.

Mr. Vince has set forth his views and facts clearly and agreeably, and the fault is no doubt ours if they do not all harmonize with our own predilictions.

(5) *Handbook of English Grammar and Composition for Indian Students by Macmillan and Hakim.*—It is seldom that a work in all respects satisfactory is placed before us. It presupposes the knowledge of the elements of English Grammar, and has for its object to supplement such works by giving the student some knowledge of the chief questions discussed by different grammarians, and set in examination papers. It must be of great assistance to the student, when preparing for his examination. We are sorry that Analysis has been somewhat overlooked, nor do we like the want of distinction between a sentence and a clause—a common failing in school grammars. The Publishers have done justice to the preparation of the book.

(6) *Macmillan's Advanced Reader.*—The passages chosen for this volume seem very suitable for an advanced school class, and the introduction is of considerable value;

but the Publishers' part of the work is not at all satisfactory. The paper and printing are decidedly inferior in quality to the usual style of this firm. As we understand it, a marginal index should be so printed as to catch the eye at a glance, but it will be readily seen that in this volume the type in the margins is too small, and many of the dates are consequently illegible.

(7) *Arithmetic for India by Barnard Smith and Hudson.*—The present adaptation of Professor Hudson's revised Edition of Barnard Smith's excellent Arithmetic for schools will at once commend itself to schoolmasters as a book thoroughly suitable for Indian schools. A marked feature is to use the unitary method as an introduction to the Rule of Three or Rule of Four as we should prefer to have it called, and we highly approve of the order in which the rules depending upon ratio follow each other.

(8) *Atlas for Indian Schools, Macmillan & Co.*—This Atlas, priced at one Rupee, is a very useful book. The places are clearly seen, and the colouring is tastefully done.

(9) *Arithmetic, Part I., by Shroff and Kapadia*—This book seems commendable, so far as the proper subject-matter is concerned, but it has appended to it some highly objectionable medical advertisements, which the author will do well to have removed, as in its present form it has the appearance of being only a medium for these advertisements.

(10) *Indian History.*—A table of Indian History has been published by the Orphanage Press, Poona, to which the attention of teachers should be drawn. This does not belong to the objectionable class of "Aids to Matrc." as their producers call them, which are constantly issuing from the Press. It is simply meant to outline the course of those many currents that flow together through Indian history and make it so bewildering. There are columns for the various foreign incursions into India, the predominant religions and dynasties, and the successive emergence into prominence of local races. The whole is divided into three periods, pre-historic, legendary, and monumental and historic. The scale might with advantage be enlarged and more details given; but, as it is, this should prove a helpful guide to the student through the mazes of Indian History.

(11) *A Brief Sketch of Indian History by D. Lazarus, B.A.*—This sketch has been brought up to date, and to the present Edition—the fifth—there is also added a

chronological index, and a series of pertinent questions. If we had not a fair supply of good books introductory to the History of India in this Presidency, we are sure this book would command a fair sale, but Prof. Macmillan's admirable introductory work leaves this one considerably behind. The illustrations are a new feature and deserving of commendation.

Books Received.

WE have also received the following new books and new editions, some of which will be noticed later :—

Messrs. George Bell & Sons.—Homer's Iliad, Books I.—VIII., by Alex. Pope, with Introduction and Notes by the Rev. J. S. Watson, M.A., Bohn's Library, 1s.

The Metamorphosiss of Ovid, Book XIII., with Introduction and Notes by Charles Haines Keene, M.A. 2s. 6d.

Book-keeping by Double Entry, by J. T. Medhurst. 2s.

Messrs. Blackie & Son.—Latin Grammar Papers, by A. C. Liddell, M.A. 1s.

Arithmetic Tests, Scheme "B." Standards I., II., III., IV., V., VI., and VII., 1d. each.

Messrs. W. Blackwood & Sons.—Foreign Classics for English Readers, edited by Mrs. Oliphant.

Pascal by Principal Tulloch. 1s.

Petrarch by Henry Reeve. 1s.

Messrs. Longmans, Green & Co.—Key to Algebraical Factors, by Dorabji H. Vachha, M.A., 3rd Edition, revised and enlarged. Re. 1.

Messrs. Macmillan & Co.—The Works of Geoffrey Chaucer, edited by Alfred W. Pollard, H. Frank Heath, Mark H. Liddell, W. S. McCormick. Globe Edition. 3s. 6d.

Poet's Walk, an Introduction to English Poetry, chosen and arranged by Mowbray Morris. 2s. 6d. net.

Elementary General Science, by A. T. Simmons, B. Sc., and L. M. Jones, B. Sc. 3s. 6d.

English Grammar, Past and Present, in three Part, with Appendices on Prosody, Synonyms, and other outlying subjects by, J. C. Nesfield, M.A. 4s. 6d.

Mr. John Murray.—The Works of Samuel Smiles, L L.D. Self-Help, Character, Thrift, Duty. Popular Edition 3s. 6d. each.

Jasmin: Barber, Poet, Philanthropist. 3s. 6d.

Industrial Biography: or, Iron Workers and Tool makers. 3s. 6d.

Messrs. George Philip & Son.—The Gold Fields of Canada, by E. Jerome Dyer, F. R. G. S. Cheap Edition. 3s. 6d.

Rhodes's Steamship Guide. Edited by Thomas Rhodes. 5s. net.

Messrs. Srinivasa Vardachari & Co.—A Text-Book of Arithmetic for Lower Secondary or Middle Schools, by S. Radhakrishna Aiyar, B A., and K. Vaidyanathaswami Aiyar, B.A. Lecond Edition. 10 Annas.

The Elements of Physics, for use in High Schools, by T. P. Kodandarama Aiyar, B.A., B.L. Third Edition. Revised and enlarged.

Messrs. Whittaker & Co.—The School Calendar and Official Guide to Examinations and open Scholarships, 12th issue. 1s.

Superintendent, Government Printing, Calcutta.—Vegetable Product Series, No. 38. The Mustards cultivated in Bengal, the Agricultural Ledger, 1898—No. 1, A Note by Surgeon-Major D. Prain, M.B., M.A., On Brassica, S. P. 9 Ans.

Notifications.

"*English Books in Secondary Schools.*"

With reference to the list of English books suitable for Anglo-Vernacular Standards, published at page 189 of the *Bombay Education Record* for 1894, it is hereby notified that in consequence of the rapid increase in the number of school-books offered for sale in this country, the undersigned does not propose to prescribe in future particular books, but wishes to leave the selection of books largely to the option of Head Masters of Schools.

2. It is, however, necessary that all books should be approved by the Educational Inspector of the Division, and Head Masters should, therefore, notify to the Inspector their desire to introduce any book not on the list issued in 1894, and should forward a copy of the book to the Inspector for approval.

3. New books should be introduced usually at the commencement of the school year, and care should be taken that the approval of the Inspector is obtained at least 3 months before the books are introduced into school.

4. Lists of English books approved for use in schools will be, from time to time, published in the Educational Record.

Poona, Office of the
Director of P. Instruction,
13*th August* 1898.

E. GILES,
Director of Public Instruction.

Superannuation.

No. 3474.

FINANCIAL DEPARTMENT.

Bombay Castle, 2nd August, 1898.

Resolution of the Government of India, Finance and Commerce Department (Pensions and Gratuities), No. 3157-P., dated 18th July, 1898:—

"Read—

Resolution in the Finance and Commerce Department, No. 4299-P., dated 6th September 1895, and No. 2811-P., dated 26th June 1897.

Read also—

Paragraph 4 of Despatch from Her Majesty's Secretary of State, No. 14 (Military), dated 3rd February, 1898.

RESOLUTION.—In the Resolutions read in the preamble it was ruled that an officer who is required to retire under the rules of the Civil Service Regulations on attaining the age of fifty-five years should reckon his fifty-fifth birthday as a working day and retire with effect from the next day; and that this method of reckoning should apply not only to the retirement of all Civil and Military Officers, but also to the reversion of Military and Naval Officers from Civil employ, and to the grant of leave to Civil, Military and Naval Officers.

2. In supersession of these orders, the Governor General in Council is now pleased to rule that for all officers, Civil, Military or Naval, whether in Civil or in Military employ, and for all the purposes indicated in the preceding paragraph, the fifty-fifth birthday is to be reckoned as a non-working day, and that an officer must retire, or revert, or cease to be on leave (as the case may be), with effect from and including his fifty-fifth birthday."

RESOLUTION.—Copies of the Resolution of the Government of India should be forwarded to all Heads of Offices and all Departments of the Secretariat for information and guidance, with reference to Government Resolutions No. 3300, dated 25th September 1895, and No. 3214, dated 23rd July 1897.

J. W. P. MUIR-MACKENZIE,
Acting Chief Secretary to Government.

NO. 3106 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
16TH AUGUST 1898.

MEMO.

Copy forwarded to the Manager, *Bombay Educational Record and Literary Journal* for publication in the next number of the *Record.*

E. GILES,
Director of Public Instruction.

The subjoined Government Notification No. 805 (Educational Department) dated the 11th July, 1898, is published for the information and guidance of Educational officers.

E. GILES,
Director of Public Instruction.

Poona, 20th August 1898.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 11th July 1898.

No. 805.—The following revised Schedule should be substituted for Schedule B attached to Government Notification No. 107, dated 16th January, 1895, publishing rules for regulating the admission of candidates into the lower grades of the Public Service :—

SCHEDULE B.

Third Grade Certificates.

An alternative examination is offered, and certificates of the third grade will be given to candidates who pass in all the subjects of one or other of the schemes given below :—

1

(The medium of examination will be English.)

(1) Arithmetic complete, Euclid Book I; Principles of Book-keeping by double entry.

(2) Reading and explaining 250 pages of an English prose author and 750 lines of English poetry. (Books to be prescribed a year before.) Grammar complete.

Reading and explaining an official or mercantile letter.

(3) Writing a report on a subject given by the Examiner.

Dictation; handwriting and spelling to be considered.

(4) History of India complete with some information about the system of Government.

(5) General geography of the world, with particular knowledge of India. Elementary Physical Geography.

(6) The Sanitary Primer.

2

(The medium of examination will be Maráthi, Gujarati, Kánarese or Sindhi)

(1) Arithmetic complete and native accounts, Euclid Book I.

(2) Reading and explaining the prose pieces in the highest reading book (Maráthi, Gujaráti, Kánarese or Sindhi). Grammar complete. Recitation of 300 lines of poetry with explanation.

Reading fluently any fair official manuscripts (Maráthi, Gujaráti, Kánarese or Sindhi).

(3) Writing in current hand (Maráthi, Gujaráti, Kánarese or Sindhi) a report on a subject given by the Examiner. Handwriting, separation of words and punctuation in the above.

(4) History of India complete with some information about the system of Government.

(5) General geography of the world with particular knowledge of India. Elementary Physical Geography.

(6) The Sanitary Primer.

Theoretical Mensuration may be taken up as an optional subject, and candidates who have passed in it or who can produce a certificate of having passed in Drawing or Agriculture will have a preferential claim to appointments.

N.B.—1. As an alternative to subject (2) of Scheme 2 the following subject is allowed :—

(2) Reading and explaining the prose pieces in the

highest reading book (Modi or Bàlbodh) and the Akhlàk-i-Kashi. Urdu Grammar complete.

Reading fluently any fair official manuscripts (Modi and Urdu).

2. A candidate for an office in which Urdu is recognized as a vernacular, may offer Urdu in place of Maràthi through the whole of Scheme 2. The reading book will be the Akhlàk-i-Kashi.

By order of his Excellency the Right Honourable
the Governor in Council,
A. C. LOGAN,
Acting Secretary to Government.

Concessions to Officers employed on Famine Relief and Plague Duties.

Notification.

The subjoined Government Resolutions, Financial Department, Nos. 4953, 1938 and 3235, dated respectively, the 24th November 1897, 4th May 1898 and 18th July 1898 are published for the information of Educational Officers.

Poona,
23*rd August* 1898.

E. GILES,
Director of Public Instruction.

Leave of Absence.

Concessions in respect of leave granted by the Secretary of State for officers employed on duties connected with famine relief and the plague.

No. 4953.

FINANCIAL DEPARTMENT.

Bombay Castle, 24th November 1897.

Letter from the Government of Bombay to the Government of India, No. 182-P., dated 19th August 1897.

Telegram from the Government of India in the Finance and Commerce Department, dated 6th November 1897.

Telegram from the Government of India in the Finance and Commerce Department, dated 10th November 1897.

Resolution of the Government of India in the Finance and Commerce Department, No. 5047-P., dated 15th November 1897 :—

"READ—

Letter from the Government of Bombay, No. 182-P., dated 19th August 1897.

Telegram to Her Majesty's Secretary of State, No. 4766-P., dated 26th October 1897.

Telegram from Her Majesty's Secretary of State, dated 9th November 1897.

RESOLUTION.—The Governor General in Council is pleased to announce that Her Majesty's Secretary of State for India has sanctioned the following concessions to officers employed on duties connected with famine relief or the plague, subject to the restrictions specified below:—

2. (i) To officers who have been so employed for a period of not less than five months—

either (*a*) one month's extra privilege leave,

or (*b*) full pay instead of half pay for the first two months of furlough or other leave for which half pay is ordinarily admissible.

(ii) To officers so employed for a period of not less than ten months—

either (*a*) two months' extra privilege leave,

or (*b*) full pay instead of half pay for the first four months of furlough or other leave as above.

3. The grant of the above concessions is subject to the following explanations and limitations:—

(i) The concessions are admissible in the case of famine duty, in any province in which there has been famine, and in the case of plague duty in the Presidency of Bombay including Sind.

(ii) They are not admissible to any officer whose duty in connection with famine or plague has not, in the opinion of the Local Government, been so unusually arduous as to render him deserving of them, or who has been specially appointed to such duty and has been remunerated during the performance of it by special salary or allowances.

(iii) The extra privilege leave admissible under this Resolution may be taken in combination with privilege leave earned under the ordinary rules, provided that the total amount of privilege leave so taken at one time shall not exceed three months. Any balance of privilege leave which cannot be taken in consequence of the three months' limit will remain at credit to be taken under the ordinary rules.

(iv) The concessions will ordinarily cease to be admissible after the expiry of two years from the date of this Resolution, but may, with the consent of the Local Government, be carried on beyond that date in cases where the exigencies of the public service have necessitated the refusal of leave when applied for and have thus prevented the grant of the full concessions earned, within the prescribed period.

(v) Any officer eligible for the concessions may choose between the alternatives (*a*) and (*b*) of paragraph 2 at the time he applies for leave.

ORDER.—Ordered, that this Resolution be communicated to the Departments of the Government of India; to the several Local Governments and Administrations; to the Heads of Departments under the Finance Department; to the Comptroller and Auditor General; and to all Accountants General and Comptrollers.

Ordered, also, that the Resolution be published in the "Gazette of India."

Memorandum from the Revenue Department of the Secretariat (Famine), No. 1928-FAM., dated 22nd November 1897.

RESOLUTION.—Copies of the Resolution should be forwarded to all Departments of the Secretariat, to the Commissioner in Sind and Divisional Commissioners for information and for communication to all officers concerned.

2. In submitting applications for leave and for the benefit of one of the concessions from officers who have been employed on duties connected with famine relief or the plague, controlling officers should distinctly report their opinion whether the concession has been earned by unusally arduous duty and state briefly the grounds for the opinion.

J. P. ORR,
Acting Under Secretary to Government.

Leave of Absence.

Concessions in respect of leave granted by the Secretary of State for officers employed on duties connected with famine relief or the plague.

No. 1,938.

FINANCIAL DEPARTMENT.

Bombay Castle, 4th May 1898.

Memorandum from the Commissioner, S. D., No. 4595, dated 6th December 1897—Submitting for orders the following letter No. 10021, dated 4th idem, from the Collector of Dhárwár:—

"With reference to Government Resolution No. 4953, dated 24th November 1897, Financial Department, I have the honour to ask for instructions on the following points:—

Are applications for the concessions to be made at once, or only when the officers concerned apply for leave? In the latter case statements of claim might be rather belated and the claimant might not improbably be prejudiced by the delay.

(ii) To what classes of officers do the concessions apply? I presume that they apply to all gazetted officers. If non-gazetted officers are eligible, how far down the list?

(iii) Are recommendations to be submitted or are officers to make their own claims? In the first case, is the Collector to make recommendations only within the Revenue Department, or is he to recommend officers from all departments in the district? In the second case 25 copies of the Government Resolution will be required for communication to officers concerned.

(iv) I presume that officers who are empowered to grant leave to their establishments will not have authority to grant these concessions, and that a reference to Government must be made in each case."

the Commissioner observing as follows:—

"2. The undersigned thinks that it would simplify matters if Heads of Departments were called upon to submit lists of officers considered entitled to the concession, with report on each case under paragraph 2 of Government Resolution No. 4953, dated the 24th ultimo."

Memorandum from the Commissioner in Sind, No. 393, dated 31st January 1898—Submitting, with reference to Government Resolution No. 4953, dated 24th November 1897, a memorandum, No. 5167, dated 16th December 1897, from the Deputy Commissioner, Upper Sind Frontier.

Letter from the Commissioner, S. D., No. 1004, dated 17th March 1898.

Memorandum from the Commissioner in Sind, No. 1123, dated 18th March 1898, RESOLUTION.—Orders on these papers have been deferred pending the reply of the Government of India to a reference made to them on certain points. The reply has not yet been received, but it is desirable that in accordance with the suggestion of the Commissioner, S. D., lists should be without further delay prepared of the officers held to be entitled to the concession. Heads of offices should submit their recommendations through the Collectors of districts and through their controlling Officers. Each case should be considered on its own merits and the Controlling Officers should not include in the lists submitted to Government the name of any officer unless they are satisfied that in his case the condition of unusually arduous service has been fulfilled.

A. M. T. JACKSON,
Under Secretary to Government.

Leave of Absence.

Orders of the Government of India regarding the scope and intention of the Famine and Plague Leave Concession Rules.

No. 3235.

FINANCIAL DEPARTMENT.

Bombay Castle, 18th July 1898.

Memorandum from the Public Works Department of the Secretariat, No. 48-E., dated 15th January 1898—Transferring together with notes and minutes recorded in the Public Works and Financial Departments a memorandum No. 7324, dated 3rd December 1897, from the Executive Engineer, Bijápur District, and one No. E.—2481, dated 18th idem, from the Examiner of Public Works Accounts, regarding the eligibility of Mr. Purshotam Chikidás Patel, Accountant, Public Works Department, Bijápur, for the concessions granted to officers employed on duties connected with famine relief or the plague.

Resolution of the Government of India, Finance and Commerce Department, No. 2852-P., dated 29th June 1898:—

"Read again :—

Financial Resolutions No. 5047-P., dated 15th, November 1897, and No. 315-P., dated 22nd January 1898.

Read also:—

Telegram to Her Majesty's Secretary of State No. 2293-P., dated 17th May 1898.

Telegram from Her Majesty's Secretary of State, dated 14th June 1898.

RESOLUTION.—The Government of India have had under their consideration a number of further references regarding the scope and interpretation of the orders in the Resolution of the 15th November 1897, granting certain concessions to officers employed on duties connected with famine relief or the plague. The following are the chief questions raised :—

(1) Whether concessions in excess of those allowed for famine or plague service of five months only are admissible in cases in which the service has been exceptionally arduous and meritorious, but has fallen short of the full period of ten months by an inconsiderable time ;

(2) Whether the concessions sanctioned for officers employed on plague duty in the Bombay Presidency may be extended under the same conditions to officers who have been similarly engaged outside that Presidency ; and

(3) Whether the concessions are admissible in the case of officers such as Secretariat officers and heads of certain departments whose office work has been materially increased in consequence of plague or famine, but whose duties have not involved constant active service in the field.

2. The Governor General in Council observes that the proposals involved in these references go beyond the intention of the original orders. These orders were liberally framed with the previous sanction of the Secretary of State, in the first instance, and cannot be modified to meet all the cases which may seem to lie just outside the limits prescribed. On the first point raised the instructions laid down are explicit, and in accordance with them the Governor General in Council is pleased to rule that officers who have not been employed on duties connected with famine relief or plague for the full period of ten months prescribed by the Resolution of the 15th November 1897 are not eligible for any extension of the minimum concessions admissible under the Resolution. Similarly officers who have not been so employed for five months do not come within the terms of the Resolution at all.

3. As regards the second question the case is somewhat different. Since the issue of the Resolution of 15th November 1897 numerous outbreaks of plague have occurred beyond the limits of the Bombay Presidency, in combating which some officers have been strenuously employed for prolonged periods. Thus circumstances no longer require the limitation of the plague concessions to officers of the Bombay Presidency, and the Government of India accordingly sanction their extension, subject to the conditions laid down in the Resolution, to other parts of India where plague has occurred.

4. The third question under consideration, if answered in the affirmative, would have involved an important extension of the original orders, and was accordingly referred to the Secretary of State for consideration and decision. With his sanction His Excellency the Governor General in Council is pleased to direct as follows :—

(*a*) In the case of administrative officers ordinarily serving at the headquarters of the Government of India or of a Local Government whose duties have brought them into actual contact with famine or plague, the concessions may be granted at the discretion of the Government of India or of the Local Government, as the case may be, if the conditions laid down in the original Resolution are fulfilled.

(*b*) Secretariat and other officers whose additional work in connection with famine or plague has been office work are not regarded as having been employed on duties connected with famine or plague within the meaning of the Resolution, and are not eligible for the concessions."

Letter from the Under Secretary to the Government of India, Finance and Commerce Department, No. 2960-P., dated 5th July 1898 :—

"I am directed to reply to your letter No. 447, dated 31st January 1898, enquiring, with reference to the concessions sanctioned in the Resolution in this Department, No. 5047-P., dated 15th November 1897, (*i*) whether the term 'officers' used in paragraph 2 of the Resolution may be interpreted as including all classes of Government servants, and (*ii*) whether the concessions are admissible to such officers as were employed exclusively on office work or whether the expression 'arduous' used in clause (*ii*) of paragraph 3 of the Resolution should be interpreted as applicable only to out-door work involving physical toil.

"2. As regards the first question I am to say that the concessions are admissible to Government servants generally if the terms of the Resolution are otherwise complied with.

"The second question is dealt with in the orders conveyed in paragraph 4 of the Resolution in this Department No. 2852-P., dated 29th June 1898, to which I am accordingly to refer you."

RESOLUTION.—Copies of the Resolution of the Government of India No. 2852-P., dated 29th June 1898, and of their letter No. 2960-P., dated 5th July 1898, should be forwarded to all Departments of the Secretariat, the Commissioner in Sind and the Commissioners of Divisions for information and for communication to all officers concerned with reference to the Resolutions specified in the margin.

Government Resolution No. 4938, dated 24th November 1897.
Government Resolution No. 565, dated 7th February 1898.
Government Resolution No. 1938, dated 4th May 1898.

H. S. LAWRENCE,
Acting Secretary to Government.

NOTIFICATION, KATHIAWAD.

IT is hereby notified for information and guidance of persons desirous of presenting themselves at any of the Public Service Certificate Examinations to be held in September 1899, that the following books are sanctioned as text books:—

Second Grade.

Scheme I.—(1) English—The Story of Little Nell (Bell's Reading Books) and Milton's "Paradise Lost."

(2) Gujarati—Balmitra.

(3) Urdu—"Bagh-o-Báhár" 2nd Dervish.

Scheme II.—(1) English—Masterman Ready (Bell's Reading Books) and Pope's Iliad, Book I.
(2) Gujarati—Narmagadya (2nd Edition), pages 1 to 200.
(3) Urdu—Akhla-ke-Káshi.

Third Grade.

(1) English—Oliver Twist (Bell's Reading Books) and Scott's Lady of the Lake.
(2) Gujarati—Departmental Seventh Book.
(3) Urdu—"Akhla-ke-Káshi."

M. A. TURKHAD,
Educational Inspector, Kathiawad.

Rajkot, 24*th August* 1898.

List of appointments in the Educational Department from 15*th July to* 15*th August* 1898.

23*rd July* 1898.—Rambhau Dhondi, pattern-maker, College of Science, is confirmed in his appointment.

28*th July* 1898.—The following appointments are made in the Poona High School:—

Mr. D. B. Sahasrabudhe, 12th assistant and *sub-protem* 10th assistant, to be 10th assistant.

Mr. B. S. Date, F.E.A., 13th assistant and *sub-protem* 11th assistant, to be 11th assistant.

Mr. C. A. Limaye, 6th assistant, Garud High School, Dhulia, to be 12th assistant.

Mr. Krishnaji Vinayak Ranade, lent to the Pandharpur Municipality, to be 13th assistant.

28*th July* 1898.—Mr. A. R. Jalihal, Head Master, Municipal, 1st Grade Anglo-Vernacular School, Gadag, is appointed 1st assistant Deputy Inspector, Belgaum *vice* Mr. R. B. Gunjikar, retiring.

28*th July* 1898.—Miss Mabel Newland is appointed probationary 2nd assistant in the Mahalaxumi Female Training College, Ahmedabad.

29*th July* 1898.—Mr. K. B. Vadekar, *sub-protem* 4th assistant master, Nasik High School, is appointed 2nd assistant in the Training College, Poona.

3*rd August* 1898.—Mr. S. S. Chandiramani is confirmed as 5th clerk in the Office of the Educational Inspector, Sind.

4*th August* 1898.—Mr. D. N. Kelkar, Agricultural Diplomate, 5th assistant and *sub-protem* 4th assistant, Garud High School, Dhulia, is appointed 4th assistant, Nasik High School, *vice* Mr. Vadekar promoted.

8th August 1898.—Mr. Y. H. N. Kassami, B. A., permanent 19th and *sub-protem* 15th assistant, Elphinstone High School, is appointed 18th assistant in the same school.

11th August 1898.—Mr. U. B. Bhakra, 2nd assistant Deputy, Hyderabad, and *sub-protem* 1st assistant Deputy, Shikarpur, is confirmed as 1st assistant Deputy, Shikarpur.

11th August 1898.—Mr. B. K. Advani, Head Master, Miranjo Tando School, is appointed 2nd Assistant Deputy Inspector, Hyderabad, on probation.

13th August 1898.—Mr. Shaikh Karimudin is confirmed as 4th assistant master, Poona Camp English School.

13th August 1898.—Mr. G. V. Deshpande, Head Master, Kanarese School, Bankapur, is appointed Head Master, Practising School, Dharwar Training College, on probation.

Poona, Office of the
Director of
Public Instruction,
22nd August 1898.

E. GILES,
Director of Public Instruction.

The following books are now available in the Educational Library, Bombay:—

Author.	Title of Work.	Publisher.	Price.
	A selected list of Educational Books for Secondary Schools.	MacMillan & Co.	
	List of Books for Elementary Schools.	Do.	
Ethel R. Lush ...	Lessons in Domestic Science, Part I.	Do.	
	The Royal Crown Reader ...	ThomasNelson & Sons.	7d.
G. W. Prothero, M.A., Lit. D.	St. George, History Readers, Books VII.	Do.	1s. 10d.
A. E. Woodward, M.A.	The Traveller and The Deserted Village.	George Bell & Sons.	2s

Poona, Office of the
Director of Public Instruction,
22nd August 1898.

E. GILES,
Director of Public
Instruction.

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Technical and Commercial Education.

ARE THE RESULTS OF OUR PRESENT EDUCATIONAL SYSTEM SATISFACTORY?

To this query many of the most practical men in India will, we fear, reply in the negative. And it is very difficult indeed to convince an unbelieving world of the error of its ways in rejecting what we still would fain persuade them is a blessing in disguise. The most palpable product of our so-called Higher Education is 'the full-blown B. A'., with all his unblushing honours thick upon him. Surely if there is virtue in the system, it is in such an one that its purest essence will be concentrated. And yet the mere merchant, the untutored business man, will, if he can help it, have none of him. Nay, in some offices here in Bombay the mere announcement of those magic letters B. A. is sufficient to disqualify a candidate for employment and to recommend by contrast his 'unlettered' rival of presumably more practical abilities. In such cases, in fact, so far from being held the index of a cultivated judgment or at least of a well-stored mind, the title is regarded as a danger-signal warning all and sundry to beware of a wind-distended incapacity masquerading in the garb of 'the superior person.' Threadbare proverbs are quoted against him as if to justify his rejection by the validity of general and approved principles, and, what is more to the point, numerous individual instances are furnished of the phenomenal conceit and muddle-headedness induced by a surfeit of undigested instruction. On the other hand, with a touching confidence in the true Faith Educational as it was in Macaulay and his generation, our rulers cling to the recognition of an university degree as affording its fortunate possessor a special claim to certain appointments, and therefore as a distinct indication of the possession of capacity of the kind that Government requires. How far the indication proves fallacious Government can best judge. The outsider can only remark that official experience does not seem to coincide altogether with mercantile—prejudice, shall we say?

Yet is it prejudice? The merchant wants an active and willing clerk intelligent enough to pick up a sound knowledge of business methods and ready to render prompt obedience to all his employer's directions. Now one who stands upon a fancied dignity of his own, who imagines that his bachelor's degree *per se* entitles him to higher pay and greater consideration than men of larger experience but less learning, such a man is just the person whom a practical man of business does not want and will not have. And if in addition to this undesirable conceit a graduate brings an ill-balanced intellect weighted down with ill-assorted fragments of inapplicable erudition, but lacking in that general training which it is the aim of all real education to impart, he is likely to become not merely a nuisance but a calamity to any well-regulated commercial establishment. But it may be pleaded that a sensible man will not ask for pay higher than that obtained by men of proved business ability: all that he will wish is to be considered before unproved rivals who have not taken a degree. Such a request sounds not unreasonable, but the merchant is not for a moment bound to entertain it. He *is* bound to consider his personal interest and the interests of his firm, and if his experience points to the undesirability of employing University graduates as subordinates it is useless to expect him to sacrifice those interests in order to enable our educational system to be justified of its children.

Nor is it only from the merchants of Bombay that the cry of dissatisfaction arises. Travellers in Kathiawar, for instance, will find in nearly every petty principality colleges generally of higher architectural than educational pretensions. A college indeed is an outward and visible sign of 'Europeanizing,' and the noble founder is patted on the back by approving dignitaries and commended for his warm interest in 'progress'. Yet what says his Dewan when questioned by the intelligent traveller on the state of the country's handicrafts and agriculture? Why, that few are content to work as their fathers worked, with hand and tool, that the supply of artisans is ever diminishing, that ancient arts are passing from modern knowledge and that the rabble of unproductive 'word-spinners' and 'ink-slingers' is continually reinforced from the ranks of those on whom the country should depend for its manual labour. A premium has been put upon the attainment of an artificial and conventional standard of education, and industry is thereby diverted from its old and natural channels. Under the whole complaint lies the assumption, seldom however explicitly stated, that the results are barren of utility, if not positively injurious.

Now it is absurd in this context to deal in generalities as to the superior dignity of intellectual work compared with manual labour, the inevitable difficulties of a period of transition, the ultimate superiority of the educated over the uneducated man and so forth. For these platitudes do not touch what is the real point at issue, which is, not that education is a useless or injurious thing, but that our so-called education stands condemned by its results.

Of course, the evil is no new thing and not peculiar to India, and, equally of course, there are plenty of educational quacks at hand with ready-made nostrums which they are only too eager to try. The voice of the reactionary also is sounding aloud in the land. The latter must be unhesitatingly silenced: we cannot, even if we would, set back the clock of time, and education once introduced cannot, any more than Nature, be permanently ejected with a pitch-fork. But let us take heed also how we listen to the voice of the reformer, reform he never so wisely. Thus two seductive substitutes are being hawked at the present day as excellent articles to take the place of the existing system. We mean *Technical Education* and *Commercial Education*, and when we say 'take the place of' we say it advisedly. For the advocates of these new remedies apparently consider the training imparted in them to be of general as well as of specific value. How far that is likely to be the case we will not now dispute, but it must be pointed out that the malcontents take a little too much for granted, when they unsweepingly condemn the whole of the present method. The foundations are still sound enough, but they need widening while the superstructure on the other hand has to be brought into a due proportion to the foundation as well as into harmony with the actual conditions prevailing around. Of primary education there cannot be too much but higher education should be pruned so as to suit, not the theories of Western doctrinaires, nor the temporary needs of political opportunists, but the practical requirements of the country into which it is introduced. Above all we must see that the education is educational, *i. e.*, that it trains up the minds that fall under its influence to a standard of rational judgment and rational action higher *generally* (not merely in some specific department of thought) than that they have previously attained.

Obviously this last ideal is not incompatible with specific instruction in commercial, agricultural and technical subjects. The general training must, however, both precede the special and be combined with it. Thus specific technical instruction should be begun only after a certain minimum of general education has been afforded and should not be pressed to the exclusion of all other training. In this way a genuine higher education of practical utility might be evolved, and that without any sacrifice of the better elements in the present 'arts courses' as they are called. What is to be avoided is this, the glorification of a system which rewards with definite titles persons who pass examinations that are little or no test of general capacity, sound judgment or specific ability. A "literary degree" should be left as an object of ambition to those who take a natural interest in "humane letters," and should not be distorted into the 'open sesame' of an official career.

Thus technical and commercial institutes may supplement the general instruments of education, but they must not be allowed to usurp an undue prominence. They are no doubt very practical things, but education must be made of practical utility apart from them. If this cannot be done, then they alone will not cure the evils that exist. The surest remedy lies with the teachers. So long as they try to mould the characters of their pupils on the highest ideals, to direct their energies to those ends that are productive of the highest good, so long in fact as they try to be good and practical men themselves, the result will be the same, whatever the exact vehicle of their teaching is, whether literature, science or handicraft. The charges we have been reviewing are to a grave extent charges not against education but against educationalists.

We have thought it necessary to clear the ground by the above remarks in order to understand generally what the demand for increased technical and commercial instruction really implies. The conclusions arrived at, then, simply amount to this, that however much the present system may be blamed as unpractical, barren and even injurious, specific technical and commercial instruction cannot be considered an absolute panacea, still less an efficient substitute. In the first place the charges brought are too sweeping and only apply to a portion of the finished products of our education. In the second place the defects complained of are largely defects of character, and unless these can be removed there will be no prospect of the technically trained youth proving superior to those who have been brought up under the merely literary regime of an arts course. It can never be too strongly insisted that *instruction* is not the same thing as *education*, and that consequently we cannot trust to specialistic training alone. Lastly, we must not put too much faith in merely mechanical reforms: the equipment of dozens of technical institutes or commercial colleges will not itself secure the country's industrial and economic salvation. Reforms depend more for their utility upon the agents than the instruments of reform.

But technical and commercial education is not, on the other hand, to be scornfully rejected. Now that the conditions of its introduction have been partially sifted and the above provisos and cautions duly set forth, its merits may be more properly appreciated. It is proposed to discuss in a subsequent article the exact forms in which it might be introduced with advantage on a more extensive scale than at present into this part of India, and also the particular problems and difficulties which are connected with the question.

COMMERCIAL EDUCATION.

A daily contemporary has lately been most severely taking Sir Muncherji M. Bhownuggree to task for his attack in the British Parliament on the education given in this country by the Government of India. At present it is not our immediate concern to determine the amount and quality of the education conferred by the present system, except in so far as we find it come short of facilities for the acquisition of an education adapted to the requirements of modern business life.

Great Britain ranks as the first commercial country in the world, but there for many years past, Englishmen have been hustled out of business offices by foreign correspondents, although the desire has been persistently strong for qualified Englishmen. England has thus been giving to these foreigners the practical experience and accurate knowledge of her goods which qualify them to become dangerous competitors at no distant date. To-day, the shores of India are being invaded by intelligent foreigners prepared to live moderately and to work early and late, so that not even the energy and admitted ability of the Englishman, the hardihood and tenacity of the Scot, nor, yet the importunate push of the Parsi—the Scot of India—has served to maintain the footing of these races in the world's trade as carried on in Western India. What has mainly led to this is the greater attention paid on the Continent of Europe, in Paris, Bordeaux, Genoa, Berlin, Antwerp, Dresden, and many other commercial centres to the instruments of international trade, and especially to the colloquial study of languages. In all these centres every assistance is being afforded by commercial bodies and by Universities, while the Governments of these countries make large grants to support complete and systematic courses of commercial education. It is clearly observable that the fact is ever before them that education of every kind is indissolubly linked together, and that no superstructure of commercial education, nor, indeed, of any art or science, can be built satisfactorily, except on a sound and solid basis of elementary, or rather of secondary education.

England has at last somewhat roused herself from her callousness, and in commercial centres there, chambers of commerce and learned educational bodies have been taking counsel together, and rousing each other from their lethargy with unmistakeable voice, so that arrangements are in process of completion to fully provide for the commercial education of all who may desire to take advantage of it. How are we in the commercial cities of India to take these facts? A large, though by no means sufficient amount of attention has, for the past ten years, been bestowed upon Technical Education. Government has sympathetically and generously backed up every thorough effort of private individuals in this direction. The University has taken even agriculture under its wing, and granted diplomas therein. But we need much more. We undoubtedly need a wider and more general adaptation of education for the purposes of trade, and of business life generally, and a keener recognition is needed of the daily needs of men and women moving about on this work a-day world of ours, always keeping in mind the absolute necessity of maintaining a solid general education, and the means of intellectual discipline. The people of this country must be roused to recognize the paucity and inadequacy of the means for commercial instruction, and the complete want of suitability of the present system to meet the requirements of modern business life.

When we cast a retrospective glance over the last forty or fifty years, we find Parsis trained by Scottish and English merchants taking a prominent part in every commercial enterprise. Solid fortunes were made by them, and put, by most, to excellent benevolent purposes. But the younger generation sought what they deemed the more genteel forms of business, and adopted the profession of the law or of medicine, or became hangers-on for Government appointments. Their place in commercial circles has been speedily taken by Bhattias and others, whose caste restrictions alone have prevented them from seeking abroad that foremost position as merchants which they have undoubtedly gained in at least the Bombay Presidency. There is lately, it seems to us, a slight revulsion of feeling, and Parsis are once more turning their attention to commerce. But now commercial assistants of this country are completely overmatched by their Continental fellow-assistants, and it has become imperative, if they are to regain their former position in the mercantile community, that they fit themselves for the task by a thoroughly solid education. Where and how this education is to be obtained is as yet undetermined, and we would venture to suggest that the Director of Public Instruction of Bombay should get together a small working committee composed partly of educationists and partly of commercial men to consider and report on, (1) the necessity which exists in this Presidency for good commercial education, and (2) the means to secure such an education, bearing ever in mind that whatever specialization of subjects may be arranged for, it must be grafted upon the minds of those who have received a thorough elementary and disciplinary training.

If a higher commercial school be established (and with the aid of the philanthropists at present living in this Presidency, and that of the Director of Public Instruction, not to mention any assistance municipalities may be disposed and able to give we have no doubt as to the feasibility of establishing at least one thriving institution), a definite course of study would require to be provided for three years for young men of sixteen or seventeen years of age who would be prepared to devote the time to the study of physical science before entering on the business of life. With the men so trained it would rest that foreign markets should not be lost for want of cultivation, nor home markets be glutted with manufactures and products more readily and cheaply obtainable in this country. Two years ought to be sufficient to complete the major part of the course, leaving the third year for specializing for the higher posts in commercial houses.

It is possible that, at the beginning, the demand for those who have obtained this higher commercial education may not quite immediately fulfil the expectations formed of it, yet it may be affirmed with confidence that the supply will create the demand, and when students from these higher classes have an opportunity of showing what they can do in the commercial world, the demand for these specially-educated assistants will speedily increase.

TECHNICAL EDUCATION.

SPEECH OF SIR MUNCHERJEE BHOWNUGGREE IN THE HOUSE OF COMMONS.

THE BASIS OF NATIONAL PROSPERITY.

After many years of personal observation and close study of the question I have come to the conclusion that our system of education, benevolently initiated, no doubt, and followed out on the lines which its framers designed, has entirely failed of the influence which they must have intended it should exercise on the future well-being of the people of India. I find that my Motion has caused some alarm in a particular quarter which is always easily frightened at the suggestion of any change in the present system of instruction on the hasty assumption that a blow is aimed at what is known as high education. I would, however, at once disarm such suspicion by alluding with approval to the Amendment which stands in the name of the honourable Member for Dumfriesshire, and by stating that, in asking for remedies to be adopted for the cure of the evils I complain of, I have not the slightest intention of suggesting anything which would justify the second half of his proposition—namely, that it would be calamitous if, in effecting the cure, the Government weakened either elementary or higher education. I thank the honourable Member for agreeing with me that it is extremely desirable that the Government of India should earnestly direct the attention and energies of the people to technical and industrial pursuits. I have been an ardent advocate of education in India, been actively associated with some of its educational establishments, and am myself a product of that system. It would, I grant, be in the highest degree injurious to the interests of India to lessen the volume of public instruction, and if the ultimate uses of the so-called high education, at present given there, were to be of the sort that best fulfils the purpose and aim of all national education—namely, the attainment of national prosperity—I would willingly have every one of our fellow-subjects become a B.A. or an M.A., if possible. But my contention, mainly, is that the work of public instruction for the last 50 years that it has been in operation has failed to develop in the slightest degree the vast industrial resources of India. As the rules of this Debate will not allow of my asking the decision of the House upon my proposition to-night, and as it cannot be put from the Chair, I shall take the opportunity here of reading the words in which I have couched it—"That in the opinion of this House the system of education at present pursued in British India has proved ineffectual to direct the attention and energies of its people to technical and industrial pursuits, with the result that the productive power of the country has been arrested, making it more and more dependent on foreign manufactures; that as a consequence considerable sections of its population are rendered helpless, and a sense of discontent is growing up among those classes who, having come under the influence of such education, look to Government only to provide them with the means of livelihood; and that therefore this House considers that the time has arrived when a change should be made in the system of public instruction in India, and other adequate measures adopted with a view to remedying these evils." Now, Mr. Speaker, perhaps it might be asserted that this is a singular opinion—that the view expressed here with regard to education only expresses the sentiment of the Anglo-Indian portion of the inhabitants of India—and therefore I shall take the liberty of reading a few short quotations from native authorities, whose claim to speak on the subject cannot possibly be impeached. I make my first quotation from a lecture delivered by the Maharajah of Travancore some time ago. Perhaps even my honourable friend opposite will admit that he is one of the most enlightened princes of India. In the course of that lecture, which was entitled "Our Industrial Status," the Maharajah thus referred to the students that flocked to the State schools :—"Almost without exception, all these, I suspect, look to Government employment. If our Government must provide for all the youths that receive education, our public offices will have to be extended miles, and public salaries to be increased by thousands of rupees, and after all to entertain a host of discontented, disobedient, and sometimes troublesome young men." Sir Madhava Rao, a statesman of vast Indian—I was going to say European—reputation, also, in a speech delivered a few years ago at a distribution of prizes, expressed the following sentiment with regard to our educational system in India :—"At the present day the cultivator, the weaver, the trader, the soldier, the artisan, the Brahman, and perhaps even the barber, one and all were fired with a desire to train their sons for Government employment or other sedentary intellectual employment. Hence the schools were crowded, and more schools were called for. The phenomenon was the effect of a huge popular delusion, and not the effect of a genuine thirst for useful knowledge. Government could not possibly find employment for such vast numbers. Even the best educated men were already finding it difficult to get a footing in the public service, and some of them would be glad to have wages equal to those of a good carpenter maistry." I may quote another statement on the same subject upon an authority which, although it is guilty of the sin of being Anglo-Indian, is certainly entitled to great weight, as coming from one whom the educated natives regard as their friend, Mr. H. S. Cotton, Commissioner of Assam, says :—"Numbers of young men yearly issue from our institutions, who find that they can obtain neither practice in the law courts, nor places in the public service. They look back on all the mental toil they have endured, and are chagrined on discovering that in but too many instances it leads to nothing. This accounts mainly for the discontent and restlessness which are perceptible in the rising generation." Then, again, we have the high and impartial authority of Sir Monier Williams for the following:—"Those who are unsuccessful in getting appointments will not turn to manual labour, but remain discontented members of society and enemies of our Government, converting the little real education they have received into an instrument for writing seditious articles in native journals." Now, Mr. Speaker, I beg to assure the House that, in placing these opinions before it, it is not my purpose to make any imputations against what are called, with doubtful accuracy, the educated classes of India. My whole object is to demonstrate, on the strength of opinions expressed by high authorities, both native and English, the competency or the impartiality of which cannot be for a moment doubted, the second proposition contained in my Motion, that the result of the education we give at present in India is to make considerable sections of its population helpless and discontended, because it leads them to look to Government only to provide them with the means of livelihood; so that, without finding fault with the standard or volume of public instruction—indeed, while pleading for the extension of elementary, and even higher grades of education among a large number of our fellow-subjects—it can be contended that, unless some exceptional measures are adopted and changes introduced to modify or supplement the present system, it will fail in future, as it has failed in the past, to attain the one main object aimed at in the pursuit of healthy education in every country—namely, the development of its material resources and consequent growth of its prosperity.............................. I hope to make my meaning clear as to the present condition of skilled industrial pursuits there by placing before honourable Members a few comparative figures. The value of the export trade of India in 1895-96, the latest year for which the official figures are available, was Rx. 109,545,161 and of that amount Rx. 15,333,588 was the whole value of manufactured articles; or, in other words, less than one-seventh of the whole trade. In the same year the value of foreign imports into India was Rx. 69,316,395, of which Rx. 10,197,255 was raw material, or about one-seventh of the whole imports. Thus it can be seen taht in a given year India receives and consumes of foreign manufactured produce seven times the value of the raw articles it imports. On the other hand, it sends out, in raw material, seven times the value of its export of manufactured articles. Again, we find that, whereas out of a population in England and Wales of 22,000,000, no less than 7,000,000 of people are engaged in industrial pursuits, or nearly 33 per cent. in India, out of a population of 300,000,000, about 3,000,000, and that on a liberal computation, are reckoned to be so employed, that is to say, 1 per cent. In giving these figures, I would not be understood to say that the productive power of the country has lessened under British rule, nor would I for a moment venture to assert that the policy of its administration is antagonistic to the development of industries. In fact, I have myself on more than one occasion argued that the peace and security which have been established throughout India under that rule have multiplied its producing capacity as far as raw materials are concerned, that consequently its export trade has increased eightyfold, and that the prospects of mere unskilled labour employment are greatly enhanced. It is to the production of skilled industries that my remarks have reference, and I contend that the figures I have just given, few as they are, demonstrate the dismal condition of the industrial and manufacturing capacity of India, making it evident how heavily it suffers by having to pay to foreign countries for those manufactured articles which it needs and consumes, but cannot, or will not, manufacture itself. It has unlimited wealth of natural material. It had varied industries in the olden times, embracing sculpture, architecture, wood-work, embroidery, carpet-making, jewellery, and many others of varying degrees of excellence, showing that the necessary intellect for such pursuits has never been lacking. But these have mostly disappeared, such products as require but little skilled manipulation have ceased to be a source of wealth or revenue for the benefit of the country. I could name numberless instances to prove this, but I would not venture to trouble the House with such details, for I think that a committee of enquiry would be the proper agency to examine into these particulars. In order to illustrate my meaning, however, on this part of my argument I would just name an article or two. Hides, for instance, of which there is abundance, and which would require very little labour indeed to manufacture into useful articles, are sent out of the country without any native labour being bestowed upon them, except what would be required to flay the skins from the carcasses, and just washing them and bundling them for shipment. The same skins come back from Germany manufactured. Tea, again, which is an essentially Indian product, in that it is produced on the soil, by virtue of the conditions of its climate, and grown by Indian labourers, who only get a coolie-wage, makes wealth for the planter, who is not a native generally speaking. Even the retail sale of it is gradually passing into hands which take away the profits out of India, because the native neglects the trade, as being mean, or not suitable to his tastes. Now, Mr. Speaker, it might be asked, what has the system of education to do with this condition of things? My answer is that it has, indeed, a great deal to do with it. A main function of the public instruction of a country is, or ought to be, to teach people the dignity of labour, and in a country like India to awaken in them a sense of the influence which skilled industry has upon national wealth and prosperity, and fit them in various ways for its pursuit. The present system does not perform this function. The education is too literate, and only fits the youth who get it to adapt themselves to the medical and legal professions, which are overstocked. It fails to point out to them that the instruction which they receive is for the purpose of fostering the original industries of the country and acquiring others which Western culture opens out to them. It goes further in that evil direction, and drags them away from those profitable pursuits which belong to the land, and in which their fathers were engaged, but which have in many cases already diminished and in others altogether disappeared. I will instance medical studies to show how the education we give now has a tendency to divert the people from following the more substantial side of their work in life in a given department of useful occupation. The universities in India turn out medical men by the hundred every year; but there is not in all India to-day a manufacturing chemist. The academic degree, and the prospect of earning a living by visiting patients and writing prescriptions, is, no doubt, more alluring than having to do hard, persevering work in a manufacturing depôt or laboratory; hence this strange result, that while medical practitioners multiply, the less attractive pursuit of operative chemistry is wholly shunned. This is just a casual illustration of how our teaching fails to indicate that for diligent work, based upon the instruction received in schools and colleges, there are fertile fields of activity which have been sadly neglected. On these grounds, which I have but briefly enumerated, I submit that change in the system of instruction, and in the methods of imparting it, has become imperative. I am aware that it is the people themselves who must find out these drawbacks from which they have suffered so far, and take a new departure as regards the application of the education they receive under a benevolently framed scheme. But I contend that the Government in India must take the initiative in guiding the people. Whenever and wherever they can, they must show their appreciation of manual skill, by introducing them in the curricula of schools and universities. It is essential that both in the local governments, and in the India Office itself, they should create departments for the special purpose of fostering skilled industries, placing them under the charge of experts acquainted with the capability of the material resources of India, and with the methods by which the people's energies, both mental and physical, could be directed to their proper manipulation I cannot hope to dwell at length just now on the various ways and means by which this useful purpose could be attained. This is, again, as I have said before, a subject on which due inquiry could be made, and remedies suggested, through the agency of a committee or commission. But if the view I have feebly tried to lay before the House could be acted on, I am sure it will prove beneficial both to the people and the Government in more ways than one. The economic gain to the country would be enormous if we could get the people to earn their living by operating upon those unlimited raw materials which they at present bundle away to foreign countries and buy back in manufactured forms at a heavy cost. . . . . Now, the home remittances are, I believe, about £ 16,000,000 a year, half of which is the amount of interest payable on the capital advanced by Great Britain for the construction of railways, canals, and other works of public utility. Therefore, the other eight millions, which, if we leave out of reckoning all considerations on which the remittance to that extent can be wholly or partly justified, is, say, the burden upon India, to which is attributed its comparative poverty. But, as I have stated before, the people of India pay every year for the manufactured articles which they import a sum of no less than 60 million tens of rupees. Now if by teaching the people the art to manufacture not more than one-fifth the articles, they receive from foreign countries in their present state of industrial incapacity, we can at once save them the proportion of the purchase price of such articles, and thus counterbalance the supposed inequitable burden of eight millions of home remittances. By just doing this we immediately extinguish the reason or pretext on which some of them base a great grievance. And in this one way only we should secure a great political gain, beside the great economic good that would accrue to the people. I am persuaded, Mr. Speaker, that by adopting necessary measures, without further delay, to foster the growth of skilled industrial pursuits, we should be conferring upon India great blessings, and not only justifying British rule, but making its foundations firm and permanent. Government can do much to lead the way in that direction, and the people are sure to follow. In saying this I do not make any complaint against the Government. They have heretofore expressed much sympathy for, and even tried to actively foster, the material resources of the country, as, for example, by exhibiting at the Paris Exhibition of 1878, and in 1886 at the Colonial and Indian Exhibition, some of its chief products. The vast increase in the tea industry of India is mainly due to the attention drawn to it at Paris first. But that is not enough, nor does that sort of fitful and superficial activity go to the root of the matter. It is the training of the Indian youth to technical and industrial pursuits on a systematic basis that is wanted, and it is essential that a thorough inquiry with the object of obtaining suggestions for a properly organised scheme for that purpose, should be instituted. I trust, Mr. Speaker, that before you leave the chair the noble Lord the Secretary of State for India will express himself in sympathy with the objects of my proposition, and also promise that the views which I have but too feebly set forth will actively engage in the immediate future the attention of the various Governments in India. In conclusion, Sir, may I claim the indulgence of the House for a moment longer just to express my hearty concurrence with the widespread approval with which is regarded the appointment which her Majesty has just made in succession to Lord Elgin. The Prime Minister and the Secretary of State for India have to be congratulated on the happy selection they have made. The right honourable Gentleman, the present Under-Secretary for Foreign Affairs (Mr. Curzon) will take to the discharge of the duties of his onerous but splendid position as Viceroy an intellect of the highest order and a large grasp of the most essential problems affecting India. In congratulating India on the new ruler it is going to have, I do hope that his career will be successful and brilliant, unmarred by those visitations of nature and other difficulties which have so afflicted the country in the past two years.

The New Regulations for the Recognition and Affiliation of Colleges by the University.

A full account of the debate on this subject has been published elsewhere. Readers of that report will find frequent mention made of Sections VIII. and XII. of the Act under which the University was incorporated, and also of a certain opinion of counsel which was obtained by some members of the Senate, printed and placed in the hands of all who attended the meeting.

The two sections referred to are of the following tenor:—Section VIII. gives the Chancellor, Vice-Chancellor, and Fellows "full power from time to time to make and alter any bye-laws and regulations (so as the same be not repugnant to law, or to the general objects and provisions of this Act) touching the examination for degrees and the granting the same, and touching the examination for honours and the granting of marks of honour and touching the qualifications of candidates for degrees, and the previous course of instruction to be followed by them, and the preliminary examinations to be submitted to by them . . . . . ., and, in general, touching all other matters whatever regarding the said University. . . . . . All such bye-laws and regulations shall be binding . . . provided such bye-laws and regulations shall have been first submitted to and shall have received the approval of the Governor of Bombay in Council."

Section XII. provides that "except by special order of the Senate, no person shall be admitted as a candidate for the degrees of B. A., M. A., LL. B., L. M., M. D., M. C. E., unless he shall present to the said Chancellor, Vice-Chancellor, and Fellows a certificate from one of the Institutions authorized in that behalf by the Governor of Bombay in Council, to the effect that he has completed the course of instruction prescribed by the Chancellor, Vice-Chancellor and Fellows of the said University in the bye-laws to be made by them."

The main points of the queries in regard to which the advice of Mr. John Macpherson was sought were as follows :—

Did the framing of the existing regulations come under Section XII. or Section VIII.? If under the former, was it to be inferred that Government *had completely* delegated its powers to the Senate? If under the latter, was the omission of Government to exercise its powers an oversight, and was Government at liberty to begin exercising those powers whenever it might choose? Again, had the Senate power under Section VIII. to frame such regulations? And is the effect of Section XII. strictly negative, or in any degree positive? That is, if institutions not authorized by Government are prohibited from sending men up for degrees, does it follow that authorized ones have an absolute right to do so? In other words, is the University obliged to accept men from institutions of which it may disapprove, simply because Government has granted them its authorization? Other questions dealt with the limitations of Government's power (*e. g.*, as to whether it applied to the P. E. and Intermediate. Examinations as well as to the B. A.), the necessity of a "continuing assent" from both Government and University, and the evil result which the new regulations might produce in causing friction between the two authorities. Lastly, the probable effect of a proposed amendment was asked, the purpose of the amendment being, by deleting certain words in the regulations, to place the Senate and Government on "an equal footing."

There is no need to repeat Mr. Macpherson's answers verbatim. Their gist was that the framing of the bye-laws dealing with recognition was justifiable, that it was carried out under Section VIII., and not by way of delegation under Section XII., but that Government was at liberty to exercise its power under Section XII. at any time. Government authorization, however, conferred explicitly no absolute right to send up candidates for degrees, and could only apply to the period between the Intermediate Examination and that for the degree. Under the old rules candidates from an institution affiliated by the University might be admitted to the degree by special order (under Section XII.) without Government's authorization: under the new system, however, Government's assent as well as that of the University would be required. The main results to be expected from the proposed amendment, if passed, were that the University would be able to refuse candidates from institutions approved of by Government, while Government would be unable to prevent the University's accepting candidates from institutions from which Government approval had been withdrawn (!)

This conclusion speaks for itself, and there is no need to enlarge upon it. It is, however, worth noticing that (apart from the amendment) Mr .Macpherson's statement makes it perfectly clear that Government has never delegated complete power to the University to make any bye-laws it may choose for itself, and that it is perfectly competent to resume its unexercised authority whenever it thinks fit.

In other words, in spite of the contentions of the querists, Government and the University are not and never have been on an equal footing of authority, consequently it is absurd to talk about restoring a state of things which has never existed, and it is equally foolish to suppose that Government is ready to surrender, at the bidding of the first faddist, that control which is both right and necessary. Several speakers in the debate seem to have forgotten or perhaps not to have understood these hard but very patent facts. The Vice-Chancellor and Dr. Mackichan did their best to bring them home to their audience, and though their plain speaking and sound sense were not altogether victorious, there should be little fear of the practical result. In conclusion it may be remarked that the limitation of Government's authorizing powers to the examination for the degree is one which many persons will be unable to accept on Mr. Macpherson's *ipse dixit*. This point is one (like most of those involved in this matter) to be settled not by discussions of precedent and legal niceties, but from the standpoint of practical utility.

"As others see us."

THE following kindly and instructive criticism of our Indian graduates and students appeared in "*The Guardian*" under the title of "*The B. A. in partibus*":—

"Your educated Hindoo comes to England in his hundreds nowadays—comes to get that final polish which will make him shine with superior lustre throughout his professional career. For what chance has the student who treads his dreary round in the steaming Gangetic delta, or on the surf-pounded shores of Madras, against the energetic rival who has been 'home' to Oxford or Cambridge or Lincoln's-inn-fields? None. None whatever. The English experience gives to the glib advocate a tremendous advantage in a case tried by an English Judge. It teaches him the virtue of Wamba's motto—*pauca verba*—a lesson which the Hindoo never learns in his native land. It opens his eyes, gives him broader views of men and things, teaches him self-respect. He has become familiar with educational dignitaries, and educational dignitaries have become familiar with him. Therefore it may be supposed that the Universities and the Bar know something of him, and can gauge his mind. This, to some extent, is true. But it must be remembered that the Hindoo who comes to England is nearly always, if not quite always, a picked man. The trouble and expense of the journey and the long sojourn in a strange land are too great to be incurred without strong hope of success. So that even now it may be doubted whether the professors and coaches who give the finishing touch to the stranger from the coral strand have much idea of what the average B.A. of an Indian University is like, still less of what the end joints of the tail are like. The general public has naturally no idea at all.

"A long and close experience has taught me that, on the whole, the candidates for degrees at our Indian Universities are astonishing fellows. Twenty or thirty years ago there was a not inconsiderable percentage at all examinations in India who went up purely on chance, as a sort of gamble. They paid the fee and went in just as one would take a ticket in a lottery. There might be here and there a question they could answer, and, with the help of a smiling deity, success might follow. Not that the representative of this class was without another string to his bow. Oh, no. He had yet one great point in his favour—the proverbial kindness of the *Sahib* to any one in distress.

So the hopelessly inadequate answer-paper would commence with a petition for a generous scale of marking, and would conclude with extracts (more or less imaginary) from the private history of the candidate, not omitting a present census of his children, and suggestions as to the likelihood of proximate additions. (They marry young in India, so that your sucking B.A. may easily plead guilty to a family which would gladden the heart of a French Minister.) These petitions were sometimes very funny, but they are things of the past: the Hindoo has learnt by this time that the examiner is not to be moved by private or personal considerations. 'I have hitherto failed, mathematical gates being rigidly shut against me by stony bosom of Mr. G. A. Smith,' as a saddened youth once explained it to me. But, these gamblers apart, there is still a large proportion of candidates with no reasonable chance of passing. They are fairly good, but not good enough. The puzzle is that they should be as good as they are. Leave them out, and you get a remainder of 30 to 50 per cent. who are really wonderful. Remember that they learn everything through the medium of a foreign language. English history and literature, mathematics, philosophy, science in various branches, Latin, &c., law, medicine—all are taught by English professors in English. The vernaculars are taught by fellow-countrymen, but as the examination is held in English it may be presumed the instruction is likewise. Yet, with this tremendous dead-weight to work against, the results are such as would do credit to English youth of the same age. Then, in addition to the language difficulty, there is that other difficulty, which is inseparable from a different mental atmosphere. English literature is perhaps the principal subject, taking one examination with another, and in trying to understand the thoughts of the English writer the Hindoo student has first to depolarise his own. Every word of our classical authors presupposes an acquaintance with England herself—English life, English customs and beliefs, English ideas, and so forth; presupposes a close, continual, idiomatic acquaintance with English speech. The Hindoo falsifies every one of these suppositions. From the time he leaves school in the evening to the time he rejoins it next morning—for practically no students are resident—he is in the circle of his family, where language, ideas, thoughts, customs, beliefs have nothing whatever in common with those on which his attention has been concentrated during the day. The laziest and most ignorant lad in an English school receives unconsciously, without the slightest effort, a multitude of impressions which enable him to understand an English book. This mental equipment is renewed daily, the weapons are always ready to hand and always kept sharp. The Hindoo has to find each weapon for himself and then learn its use. And yet if you except the very best Englishmen of each year, it is a question whether, *with equal facilities for appearing before the examiners*, the Hindoo would not swamp the open departments of the public services. Suppose, for example, fifty picked students from the Indian Universities were to come to England, and after two years at Oxford or Cambridge were to go up for the Indian Civil Service, how many of them would be beaten by Englishmen? There would be seven or eight Englishmen in the top ten, but I suspect at least forty of the Hindoos would be in the first sixty. The moment you go below the cream of the Englishmen the Hindoo requires a deal of beating. The reasons for this are well known, but they cannot be touched upon here.

"Rather it is my intention to jot down a few examination stories from India, for the purpose of throwing some light on the way in which the Hindoo looks at things. The mistakes of candidates are not seldom instructive. Some of these stories are more or less widely known, though probably even the most familiar of all may be new to a few readers, but several of them embody answers given to me personally, and have never been in print before. Of the former class, perhaps Cromwell has enjoyed the widest circulation. 'Who was Oliver Cromwell?' 'Cromwell was very stern man who killed Charles I. by means of repeated beheadals. When on his death-bed he is said to have exclaimed, "Had I but served my God as I have served my King I should not now be naked."' That is a very familiar type, the confusion of persons and incidents. Far more interesting are those in which the candidate has an idea, but expresses it badly. 'What is a Bheel?' 'A Bheel is a hairy man who hides behind a bush and shoots you with a bow and arrow. He then buries you in a ditch. By this you may know him to be a Bheel.' You are a little late in your induction, and the position recalls Schopenhauer's remark on suicide —'It is a clumsy experiment to make, for it involves the destruction of the very consciousness which puts the question and awaits the answer.' I have ventured to say that the mistakes of candidates are sometimes instructive. Here is a case: In England when a man is being tried for murder, a statement made by his victim is admitted as evidence under certain restrictions—*e. g.*, the man must have known he is dying. The idea, of course, is that words spoken at that supreme moment are not likely to be false. That is the Christian view. A man will not go before his Creator with a lie on his lips. But there is an old tale of a Brahmin law student, who, on being asked to explain the term '*dying declaration*,' wound up his reply as follows :—'*The essential point is that though the man was dying he must not have known it, for if he knew he was dying he would not be afraid of being tried for perjury, and therefore would not care what he said.*' Probably that story was coined in the mint of Mr. Benjamin Trovato, but it is worth noting that in 1872 that particular condition necessary for a 'dying declaration' was expunged from the law of India, presumably on account of in its applicability.

"My private collection can scarcely boast gems such as these, and yet I am proud of one or two specimens. Examining in English history, I asked, 'What was the attitude of Charles I. in ecclesiastical matters?' One answer was couched in these very words, 'Charles I. wished, like his father, James I., to become obsolete; and he did so.' Could the situation be expressed better? *As You Like It* being a text-book one year, the three hundred candidates for the B.A. degree were invited to explain the line, 'The why is plain as way to parish church.' One of them thus delivered himself:—'The reason is as plain as the road to the church, which can always be distinguished from other roads by being covered with grass, because very few people use it.' And to this day my mind is in doubt as to what that youth meant. *Primâ facie* he intended to express the belief that religion was almost entirely neglected in Shakespeare's day, but *query* whether he did not mean that the old Roman Catholic darish chapel was neglected in consequence of the Reformation. Humour and satire are infrequent characteristics of the Hindoo. Turning to law, the Indian Penal Code, it may be explained, is comprehensive to an extraordinary degree—a net that catches the tiniest minnow. That is the inevitable result of defining crimes. The words that embrace the theft of a diamond tiara also embrace the conveying of a pin. The clause which puts a man in the dock for knocking you down and trampling on your face might also make him liable for tapping you on the shoulder. So there is a saving section of the *de minimis non curat lex* order. On asking some candidates for magisterial appointments what protection there is against the apparently dangerous comprehensiveness of the code, this reply emanated from one aspirant:—'There is not any way to escape the Penal Code, if you stay in this world; the only thing is to become a hermit.' That is not bad, but here is a better. Indeed, I am not sure that as a legal answer it has a superior. Unfortunately it can only be properly appreciated by those acquainted with the real meaning of the expression involved. Question—'Explain the terms *patent ambiguity*, *latent ambiguity*, with an illustration of each.' Answer—'A *patent ambiguity* is something you can see, while a *latent ambiguity* is something you cannot see but afterwards you find out. For instance, if I sell a horse for sound which is blind with one eye, that is a *patent ambiguity*; but if I sell a horse as tame and fit for a lady to ride, and afterwards it will not, that is a *latent ambiguity*.' Our life is one long struggle between duty and inclination, but rarely has my breast been more torn in the conflict than on that occasion. I positively yearned to give the ingenious youth full marks. Examining in English literature I once asked a batch of candidates to give a conversation between an uneducated father and his student son, showing the arguments that might be urged against and in favour of book-learning. This would be a very familar subject to most of them, as in the early days of Indian Universities a large proportion of the students came of quite poor fathers who either could not speak English at all, or, if at all, only the jargon current in the ranks of the lower officialdom. Two of the papers were curious in making the father talk what was fondly supposed to be an English rustic dialect? The idea of a Hindoo peon or police sergeant beginning a conversation with, 'Now look'ee 'ere, Ram Ghose' (or Vencataswami, or whatever it might be), 'this 'ere larning is all stuff o' nonsense,' &c., was decidedly original, and it at least showed that the authors had read something beyond their classical text-books.

"These stories have been given haphazard, with no attempt at arrangement, and whatever their merits it must be admitted that they have been beaten on their own ground by English candidates. No one of them rivals in misplaced accuracy the terse reply of the board school youth to the question why the days in summer are longer than in winter—'Because heat expands all things.' That strikes me as perfect. The Hindoo boy of that lower scholastic plane can be quaint also—as, for example, he who explained the term *Boycott*. 'This is spelt badly, Mr. Examiner. It should be *boycote*. We say *dovecote* for a cage in which doves are kept, and similarly *boycote* is a cage in which boys are kept.' Or he who, when asked the meaning of certain symbols and abbreviations, gave *£ s. d.* as representing *Literary Society, Dublin.*

"The Hindoo has one great advantage in the examination room. He is not in the least shy, and is not often nervous. Within three minutes of sitting down he is scribbling away at his ease as though on his own school-bench. But this coolness has its disadvantages. He would take more trouble were he more anxious. My own experience leads me to the conclusion that a considerable percentage of candidates fail simply because they will not be at the pains to think out the answer before beginning to write it down. Not seldom their haste does not even allow them to read the question correctly. I could cite numerous instances of this. Asked to write an essay on some outdoor game and its advantages as affording exercise, at least half a-dozen out of perhaps 500 selected chess. Examining for the B.A. degree, one of the text-books was *Othello.* I said :—'Write a letter as from Cassio to an intimate friend in Venice, detailing the events of the Fifth Act, taking care to distinguish between those of which he was himself a witness and those of which he only heard from the mouth of others.' Five out of rather more than 400 candidates wrote the letter as from Iago—a mistake which afforded opportunity for some highly amusing expressions of terror at the thought of the coming unpleasantnesses. One of them began something in this style :—'Oh, my dear friend, I don't think I shall ever see you again. I am in prison, and what they are going to do to me I can't think. Well, I must grin and bear it,' &c., &c. This want of close attention to the matter in hand, and an exceeding diffuseness in setting down what he wishes to say, are the leading faults of the Hindoo student in his work.

"But when all is said and done, he is wonderful, and if the examination-room were any real test of fitness for the duties of life—but unfortunately it is not."

The Study of Vernacular Poetry.

SINCE the vernaculars of the Presidency have been exciting some attention of late, a few *obiter dicta* on the study of vernacular poetry in general, and of Marathi poetry in particular, may be of interest. The stand-point from which the subject has been approached is not that of the pure scholar or the scientific philologist, but rather that of an intelligent amateur dabbling in the comparative study of literature, one who says to himself on "discovering" a fresh language:—"Here is a new voice speaking across the barriers of race and clime and echoing its message through the ages. Let me see what it has to tell."

Given a fairly general and not too superficial culture in the classical and vernacular tongues of his own race and country, an enquirer of this kind will soon pass on from the investigation of mere words and roots to the study of ideas and of the forms in which ideas are expressed. Of the two most general forms of expression, prose and poetry, the latter will probably be the more likely to attract his notice first, both because in nearly all languages it is the most ancient and lasting vehicle of thought, and because it may naturally be expected to possess an innate charm superior to that of prose. Hence he will be led to ask "How does the poetry of my new acquaintance compare with that of my old friends?" In instituting any comparison, he will look especially to the points of matter, style, and metre.

In regard to the first, he will review the subjects dealt with by the poets of the language under investigation, and bring them into relation with those treated by the poets whom he already knows. In so doing he must consider and compare parallel points of view, similar methods of of treatment, corresponding ideas, and at the same time note contrasts and points of divergence due to geographical, racial, and individual influences. Under style he will compare and contrast the details and employment of similes, metaphors, and other figures, the modes of poetic construction, the adoption of particular devices to heighten poetic effect, and so forth. Lastly, in studying metre, he will bring together the various harmonies and rhythms, and will seek to discover how far the new ones satisfy his ear, and whether they give as supreme delight as those he has already learnt to love.

Investigated on such lines Marathi poetry will give results by no means disappointing. A crude preliminary trial of the methods suggested above has at any rate brought the present writer to the conclusions which he is about to set forth. They should not, however, be regarded as authoritative formulæ, but are intended to be mere outlines, which, it is hoped, wider experience and a closer acquaintance with the subject will strengthen and fill out in the future. Considering its comparatively small bulk, the scope of Marathi poetry is by no means narrow, reaching as it does from psalm and epic—for Moropant's work has epic tone—to love-song and satire. But in the whole Marathi anthology there is nothing, in the present writer's opinion, which will appeal to the cultured Western mind so much as the "Song of Nala" by Ragunath. True the style and language are far from simple, are, indeed, highly Sanskritized, but then Ragunath is neither primitive bard nor psalm-chanting prophet, but a highly-cultured poet brought up on the most elaborate of classical languages. He is comparable, *longo intervallo*, with a Tennyson, not with an Ossian or a David. Indeed, there are many touches in the "Song of Nala" which remind one of the highly-wrought and subtly-allusive work of the late Poet Laureate. In both the Maratha and the English poets we find "all the chosen coin of fancy flashing out from many a golden phrase," and thereby causing the poor translator much perplexity and searching of commentators. In both we have the same artistic reticence, which prefers to hint at parallels and likenesses in occult and cunning metaphor, rather than to flaunt them too obviously in explicit simile. Both are permeated with the classics, and yet in the poetry of both there breathes the spirit of true romance.

This—its genuine romantic tone—forms the quintessence of the charm which the "Song of Nala" wields on a European reader. There are passages, especially, in which romance is rendered still more fragrant by an all-pervading love of nature's children, the beasts and birds, passages which recall the work of English and French mediæval poets. Such, for instance are the descriptions of the great king's "orchard close," the prospect of the mighty capital, the adventure of Damayanti in the garden, the taking of the "Swan Royal," and so forth. Yet with all the romance, there is here and there a classical dignity of simplicity and directness which is almost Homeric. Damayanti and her playmates remind us irresistibly of Nausicaa and her maidens. The subject of the former's marriage is introduced in a style quite as artless as ever was Nausicaa's, and the means adopted to bring it about are not unlike Geek mythological methods of matrimony. Above all, we note the freedom and high consideration enjoyed by the sex, a feature as noticeable in the "Song of Nala" as in the

Odyssey of Homer. In fitting harmony with this chivalrous attitude towards women is the moral tone of the Marathi poem, the delicate innocence of which is free from all the *arrières pensées* which so often lurk in the poetic aspirations of the *Trouvères* and *Troubadours.*

But the reader must not expect too much. The poem is full of difficulties for the European, difficulties both of language and of thought. Its chief defect is an inherent weakness of structure. The story is a long time getting under weigh, and its progress is obscured and hindered by outbursts of rhapsody full of bewildering mythological allusions and vague imagery, too often of a merely conventional type. The sequence of thought is by no means plain to the Western mind, and there is little or no attempt to ease the harsh and sudden transitions by any *callidæ juncturæ.* Here it is that the inevitable element of Oriental intellectual involution exercises its most baneful influence. One is tempted to charge the poet with wilful and wanton sacrifice of sense to sound, or at least with downright inability to say a plain thing plainly. And yet he has, if he chooses, a command of the simplest and most graphic language. Witness the description of Nala's prowess on the battle-field, which in vigour is not far after the most stirring passages of "Marmion." Again, if we look to the plot, the motive of the gods' interference appears unreasonable, their action *bizarre*, and its result undignified. Yet here also parallels may be found in Greek mythology (*e.g.*, in the marriage of Thetis), and even in the best Greek literature, while such repulses were not unknown, too, to the Scandinavian deities, Thor and Odin. Lastly, the metre with its continual changes and yet continual monotony, with its artificial assonances (which degenerate into sheer puns, most devastating to the sense) and its Eastern subtleties of rhyme and rhythm, is apt to pall on the European ear, not, perhaps, educated up to such a standard.

In the version of the prelude appended to this article, no attempt has been made to reproduce varieties of metrical effect or idiosyncrasies of language. The version is, in fact, a paraphrase, not a translation, and aims solely at expressing the general sense and spirit of the original, much of the evasive charm of which must necessarily have been lost in the process of transmutation, or, if not lost, at least left clinging indeterminable to the crucible. The writer, therefore, hopes that its defects will be attributed not to the "maker" of the poem, but to his own deficiencies of poetic sense and faculty.

THE SONG OF NALA.

PROŒMIUM.

"Chief among kings of happy auspice styled,
Solace of earth and that lone serpent old
Whose head upbeareth all earth's weary load,"
(Thus Vyas wrote, thus ancient men and wise
Chanted the praises of his worthiness)—
Nala, the son of Virasena, ruled,
High sacrificer to the gods of yore,
To Indra and the rest who sit above.
Honied as nectar draught and in men's hearts
Spring of the sweetness of true ruth and love
The tale I sing—how Damayanti (she
That fairest moved among her compeers fair,
Yet all ungrudged) to Nala fell to wife.
How may I speak his glory? This chill sun,
Clepèd of mortal men the moon, at full,
Beamed but a quarter of that sea of light
His orb which set not nor aught equal knew.
    Eclipse the moon shall veil,
    Ganges' wide waters fail,
    The pearl to dust men grind.
    How then fit emblem find
    In things that pass and wane
    For Nala's happy reign?
Lover of horses and by horsemen loved,
Doer of sacrifice, whose welcome still
The twice-born bade to take their due, the Kin
Recked nought of riches, but good deeds alone
He treasured, tending Virtue as his life.
High be his worth and steadfast valour sung!
Like Sun that shines a brother unto all,
Like Moon that joyance to the lotus brings,
His grace held sway, in form embodied fair
As grace of gods incarnate, or as his
The Wielder of the champa-blossom'd bow,
Who form abides not, incorporeal Love.
Nay, and the Lords of healing, those bright twins,
That sprang immortal from the Radiant Steed,
By Nala's side, as dull brutes of the field
Hid their high art and all their lustrous pride.
In battle but the singing of his bow
Told of the quiver op'd, the swift shaft drawn,
Fitted and driven with unswerving might
Through breast and breastplate of the fallen foe.

J. G. C.

(From '*The Times of India.*')

The Study of History by Indians.

IT has been often observed that the Indian mind is lacking in the historic sense. History is conspicuous by its absence in the indigenous literature of India, which is rich in poetry, the drama, philosophy, mathematics, and theology. Only one historical work is known to have been produced in ancient India, the *Rajtarangini*, which is a history of Cashmere, and it has not been followed by a single history of any note during all the centuries that have elapsed since its production. The *Puranas* may be said to contain some history, but fact is so much mixed with fiction therein, and there is such a mass of mythological embellishments, that it is really very hard and perplexing to glean the grain of historical facts from the chaff of useless and trivial details The Hindu cared so much for the other world, and so little for this world, that he did not think it worth while to leave behind any record or account of his doings here. He either wanted entirely what has been well called the commemorative faculty, or exhausted the little that he had of it in commemorating his gods and their wonderful deeds; so that little was left for the deeds of even the greatest of his kind. This may be only a very partial explanation. The full explanation of this strange phenomenon in the literature of India is almost impossible. It is really inexplicable, for instance, that kings like Asoka and Vikramaditya, so powerful, so enlightened, and such great patrons of learning too, should have taken no care to leave for posterity authentic histories of their reigns. It cannot be said that they were careless of their posthumous fame, for both took care that succeeding ages should hear of their deeds. Asoka had his edicts inscribed on rocks in the extremities of his realm; and Vikram desired to be handed down to posterity as the patron of the famous literary Pleiades of his court. Yet neither of them had a single court historian, and we depend for accounts of their reign on scraps gleaned from inscriptions, coins, and other roundabout sources; nay, the very age when Vikram flourished is a matter of conjecture, and subject of historical induction.

When the Mahomedans came to India, they brought with them the taste for historical writing, and left behind elaborate chronicles of the entire period of their rule. Kings not only employed scholars of their court to write, but themselves wrote memoires and journals. The Moghal period is specially famous for its historical materials. Most of its emperors, Babar, Humayun, Jehangir, Aurangzib, composed their own memoirs; whilst the letters of the last of these are quite like the despatches of Western rulers and statesmen. Akbar, though he did not, and could not write himself, commissioned several of the best scholars of his reign to write elaborate historical accounts of the period. The eight volumes of Elliot and Dawson show what a wealth of materials we have got for the Mahomedan period, and how it differs in this most important point from the early period of indigenous Hindu rule.

This example of the foreigner had some effect on the mind of the Hindu also, who took to chronicling the events of the time during the last two centuries of Mahomedan rule. The Hindus of the Kayasth or clerkly caste wrote several historical works about the rule of the last Moghul sovereigns of India, and specimens of those may be seen in the concluding volume of Elliot and Dawson. But the Maharattas were the chief people who imitated the Mahomedans in their bent for historical writing. From the very beginning of their ascendency, they were careful in chronicling their deeds and the exploits of their great men. When their rule was firmly established under the Peishwas, most elaborate records were kept in their archives, most of which have come down to us. Their *bakhars* or chronicles, and other biographical and historical literature, furnish valuable material for the history of those times, as may be seen from the works of Grant Duff and Scott Waring.

The case of the Mahrattas developing a historical literature of their own on the model of their foreign Mahomedan rulers shows the Indian is not backward to imitate a good thing when he comes to know its value. Now another foreign rule has succeeded the Mahomedan, that of the British, which affords far greater opportunities for development and enlightenment of the Indian mind, and for the cultivation of all branches of literature and science. England has laid open, through the almost universal teaching of her language, the vast stores and treasures not only of her own literature but of those of all times and countries. History forms one of the foremost branches of English literature, and a taste for it is sure to be acquired by any student earnestly pursuing that literature. The renaissance of the Indian intellect that is now going on for some time under the British rule is in danger of being too partial and one-sided owing to the undue bias being acquired by young Indians for politics. This may be regretted, but cannot be altogether mended now. What can be done, and done very effectively and beneficially, is to direct this taste for politics into healthy channels as well as to base it on sound knowledge. What goes for politics at present with most Indian youths, grumbling about grievances and idle irresponsible talk about remedies unsuited to the country and its peoples, cannot be too much deprecated. Attempts to suppress or discourage it only succeed in making matters worse, and in getting them to fancy it must be a very precious thing they have come to possess and which the ruling class, out of sheer jealousy, want them to give up. The best remedy is to educate them out of their present shallow notions about politics. Politics should not be tabooed; the youths should be made to study politics. Yes, study them as they ought to be studied with the aid of the allied sciences of history, economics, and ethics. And history above every other. A proper study of history is the best corrective for shallow superficial politics. Politics when based on a historical foundation is raised from the sphere of ordinary irresponsible talk which harms those who dabble in it as well as the best interests of the people. Politics, like the applied sciences, requires a careful consideration of surrounding circumstances, the ways, temper, and habits of the people. The favourite author of young India, Burke, ought to teach them of what vital, almost sacred, importance is politics—the science of Government—and with what great care its problem should be handled. History will teach the Indian student of politics the circumstances and environment of the people, and their fitness for the enjoyment of new institutions and privileges. By showing him what they have been in the past, it will check him in expecting too much from mere new institutions and theories. It will give him confidence in slow and steady historical growth and make him less sanguine about the capabilities of a single generation, however clever and enlightened some of its men may be.

It it not merely the study of the history of his own country that will do the Indian good. The history of all ages and countries, if properly studied, will make him hold sound views about the present and the future of his own land. A proper and deep study will, for instance, teach him how the same representative institutions were a success in England and a repeated failure in France, how people, under the sway of one religion, have advanced much more rapidly than those under another, how one race has subdued another by its superior qualities, mental, moral, and physical—without which, political supremacy and independence are impossible.

The study of history ought then to be certainly encouraged among the Indian students, the history of their own country as well as of other countries. British rule in India has everything to gain by the wider spread of a knowledge of the past of their own land by the peoples under it, and the ways in which other empires of the past, like the Macedonian, Russian, Germanic, Napoleonic, treated their conquered subjects. The Indian mind has not a strong historical bent, it is true. But it is beginning to acquire it and as we have seen in the case of the Mahrattas, it can acquire it under foreign influences successfully enough. By judicious encouragement of historical studies much may be done to improve the much-talked-of and censured state of mind of the newly educated Indians. The Universities can do much in this matter by a sensible regulation of their courses of study. Hitherto what they have attempted is desultory and piecemeal. No graduated course of historical studies exists, for instance, in our University. A student reads a bit of various histories in a mechanical manner till he graduates. And after that, if he studies further for his M. A. degree, he has some experience of real scientific historical study. But even this higher course is far from satisfactory. In another article we may say a few words about historical studies as it ought to be pursued in our University.

K.

Hygienic and Medical Aspects of a Typical Native School in India.

By Joseph Benjamin Bamnolkar,

Medical Practitioner, Ahmedabad.

On the 5th March 1898, Drs. N. D. Chatrapati and C. H. Desai accompanied me to report on the health, and other conditions of the Ahmedabad Khadia Municipal Vernacular School, which occupies three rented buildings in a very crowded portion of the city. The subjoined is an account of the room on the lower floor which is occupied by 28 boys of the VI Standard. This room of the building, which opens to the south only—the other sides being shut in by houses with a narrow street separating them—is 24 feet long by 16 broad, and has a sloping roof, which is 102 inches at its highest, and 70 inches at its lowest, height from the ground, and is devoid of ceiling.

The area of the room was 384 feet and its cubic capacity 2,688 cubic feet; thus allowing 10 square or 72 cubic feet per pupil, which is 5 and 78 feet respectively *below* the minimum laid down by Newsholme, and showing the urgent necessity for a better school building.

Five east and two north windows, each measuring 64 by 27 inches and a south door 73 by 33 inches furnished light and ventilation to the pupils, who had to squat on the floor; for desks or benches there were none, and the total furniture of the room consisted of a table, a chair, a black board, a gong, 3 maps, and a box for records.

Four of the pupils were Mahomedans, while the remainder, who were Hindus, may be further classified—6 Avdich Sapasra; 2 Travadi Mewada, 2 Modh Chachurvedi, 1 Bhat Mevada, 1 Shrigod, 1 Visnagra Nagar, Sachora (*i.e.*, 14 Brahmins of sects), 3 Banias, 4 Kunbis, 1 Tamboli, 1 Gola and 1 Koli.

As neither steelyards nor weighing machine were available, we could not add the weights of the boys to the following information concerning them, according to their several ages:—

Detail of Age.	12	13	14	15	16	17	18	19	Total.
Number of boys present in the class ...	2	2	5	3	7	6	2	1	28
Number of boys married	1	2	2	2	5	5	1	...	18
Number of boys single	1	...	3	1	2	1	1	1	10
Number of smokers	...	2	1	1	1	2	1	..	8

Detail of Age.		12	13	14	15	16	17	18	19	Total.
Number of non-smokers...	... ...	2	...	4	2	6	4	1	1	20
Height of boys shown in inches	rising ... 51	1	1	...	...	...	...	...	...	2
	" ... 52	1	...	...	...	...	...	...	...	1
	" ... 53	...	1	...	...	...	...	...	...	1
	" ... 54	...	...	2	1	1	...	...	...	4
	" ... 55	...	...	1	...	1	...	...	...	2
	" ... 56	...	...	...	...	1	...	...	...	1
	" ... 57	...	...	...	1	...	...	...	...	1
	" ... 58	...	...	1	...	...	...	...	...	1
	" ... 60	...	...	1	1	...	2	...	...	4
	" ... 61	...	...	...	...	2	...	...	...	2
	" ... 62	...	...	...	...	1	...	...	...	1
	" ... 63	...	...	...	...	...	1	1	1	3
	" ... 64	...	...	...	...	1	1	...	...	2
	" ... 65	...	...	...	...	...	1	...	...	1
	" ... 67	...	...	...	...	...	...	1	...	1
	rising ... 68	...	...	...	...	...	1	...	...	1
Chest measurement in inches	" ... 23	1	2	1	1	...	...	...	...	5
	" ... 24	1	...	2	...	2	...	...	...	5
	" ... 25	...	...	2	1	1	1	...	...	5
	" ... 26	...	...	...	1	1	...	...	...	2
	" ... 27	...	...	...	...	1	1	2	1	5
	" ... 28	...	...	...	...	...	1	...	...	1
	" ... 29	...	...	...	...	1	3	...	...	4
	" ... 30	...	...	...	...	1	...	...	...	1
Pulse beats per minute	.. 68 to 76	...	...	...	...	...	1	1	...	2
	... 80	...	1	1	1	...	1	...	...	4
	... 84 to 88	1	1	...	...	4	2	1	...	9
	... 92 to 96	...	...	1	...	...	...	...	1	2
	... 100	...	...	2	2	3	1	...	...	8
	... 108	1	...	1	...	...	1	...	...	3
Respirations per minute	... 16 to 20	...	...	2	1	4	4	2	1	14
	... 22 to 28	...	1	3	...	3	1	...	...	8
	... 30	1	1	...	1	...	1	...	...	4
	... 32	1	...	...	1	...	...	...	...	2
Number of teeth	... 24	2	1	1	...	1	...	...	...	5
	... 26	...	...	...	...	...	1	...	...	1
	... 28	...	1	3	1	4	2	1	1	13
	... 29	...	...	1	2	2	1	...	...	6
	... 30	...	...	...	...	...	2	1	...	3
Number of hours of sleep indulged in	... 7	...	...	...	1	1	3	1	...	6
	... 8	2	...	3	2	5	3	1	...	16
	... 9	...	2	1	...	1	...	...	1	5
	... 10	...	1	...	...	...	...	...	...	1

Briefly stated for comparative purposes the averages per pupil according to age were:—

Ages.	12	13	14	15	16	17	18	19	Total.
Height shown in inches ...	$51\frac{1}{2}$	$51\frac{3}{4}$	56	$56\frac{1}{6}$	59	63	$64\frac{1}{2}$	$62\frac{1}{2}$	58
Number of inch round chest...	$23\frac{1}{2}$	$22\frac{3}{4}$	24	$24\frac{2}{3}$	$26\frac{3}{7}$	$27\frac{1}{2}$	$26\frac{3}{4}$	$26\frac{1}{2}$	$25\frac{1}{4}$
Pulse beats per minute ...	98	84	97	93	92	90	76	92	91
Respirations per minute ...	31	28	22	27	22	22	18	20	24
Number of teeth ...	24	26	27	29	28	28	29	28	28
Hours of sleep indulged in	8	$8\frac{3}{4}$	$8\frac{1}{2}$	$7\frac{2}{3}$	8	$7\frac{1}{2}$	$7\frac{1}{2}$	9	8

From which tables it is plainly evident that the physique of Indian school boys is considerably below that of American and European lads of similar ages; but this is due partly to the want of proper physical training and partly—rather chiefly—to insufficient feeding or poor quality of food. Thus while 5 of the lads had a mixed diet, 23 had to live exclusively on vegetable food, and took but two meals a day, while the parents of two only of these boys could afford to give them a *little* milk every morning. The staple food of 14 of these 28 boys was wheat, 6 used *bajri*, and ate 8 both wheat and *bajri*.

Vision was good in 23, fair in 2, and somewhat myopic in 3 of these boys, of whom 22 kept good health, 2 suffered from chronic granular ophthalmia, 3 kept fairly well and 1 had indifferent health.

Exercise.—The school being devoid of compound or play ground, the boys had to indulge in their rompings and games at home, and the want of this physical exercise was manifested by their flat chests and undeveloped muscles. The numerators of the following fractions show the hours devoted to play, and the denominators, the number of boys who indulged in such pastimes: $\frac{0}{4}, \frac{0.5}{5}, \frac{1}{7}, \frac{1.5}{4}, \frac{2}{7}, \frac{3}{1}$. So that the average was $1\frac{9}{56}$ hrs. play, 8 hours sleep, and more than 8 up to 11 hours of school and private study. This is harmful and totally disproportionate. There should be a between-study interval to teach the boys physical drill, dumb-bells, swinging, and such like manly and heathful exercise.

The *pulse*, though accelerated in some of the boys, was not near so strong as it should have been, and both heartbeats and respirations were hurried; but this should rather be attributed to their excited state of mind and the flatness of their chests than to disease.

Vaccination.—Twenty-two had been protected by vaccination, 5 had had small-pox, and of these 2 had also been vaccinated, while a Nagar boy, aged 17, had not been vaccinated.

Bathing, &c.—Ahmedabad being supplied with tap-water, the boys get pure water for potation and ablution, but while 2 of the Mahomedan lads bathed once a week only, 1 of them bathed every fourth day, and 1 every second day; whereas of the Hindu lads 2 bathed *twice* daily, 21 once a day, and 1 every two days. Of all these lads 6 favoured cold baths while the remainder used warm water, and it was noticed that the cold water bathers were more robust and enjoyed better health than the others.

Civil Status.—Of these pupils 12 paid full tuition fees, 4 paid half fees, and 12 unable to pay anything were admitted "free" of charges; 8 of them had parents who were fairly well off, 5 were in medium circumstances, and the remainder very poor. The avocations of the parents were as follows; 8 goomastas or agents or salesmen, 3 weavers, 2 educational, 2 mill hands, 2 astrologers, 1 in railway service, 1 money-lender, 2 petty traders, 1 native doctor, 1 Government pensioner, 4 professional beggars and 1 no occupation; but while 18 of these lads had both parents living, 3 had lost their fathers, 5 their mothers, and 2 were orphans.

None of them had curvature of the spine or any sort of cutaneous affection, and only one lad, who was the most puny of them all, had a wry neck and chronic plenutic effusion in his right chest.

The "type" in which the text-books were printed was too small, and rather trying for the eyes. There was no proper latrine accommodation. It does certainly seem strange that a large and important school like this (it has 600 boys, but we had not the time to crucially examine all of them as we did the 28 this report includes) should be without efficient periodical medical inspection, and that no arrangements exist for the prompt and definite detection of contagious affections, should any appear. The sooner the municipality remedies this serious omission, the better for the township and for the boys, who would otherwise be unwisely and unkindly exposed to the risk of infection.

College Gymkhanas.

OUR attention has been drawn to the unsatisfactory treatment, from the historical point of view, of the subject of College Gymkhanas in a previous article on 'Physical Education.' The contributor of the article was not in a position to know all the details, nor were these exactly of material importance to his argument. However, we are confident that he will welcome, as we do, all authoritative information supplementing or correcting his own.

The Deccan College Gymkhana which yields to none in point either of antiquity or good management, has been entirely passed over, and very scant justice has been done to the way in which the non-Government colleges in Bombay do what is in their power to encourage physical recreation. In regard to the Elphinstone College, while not wishing to depreciate whatever services Mr. Oxenham may have performed for the Gymkhana, we must point out that he can in no sense lay claim to be considered, so to say, its patron saint.

The Elphinstone College Gymkhana was founded in 1890 under the principalship of Mr. Wordsworth, and two of the most energetic of its earliest supporters were the present principal and Mr. N. A. Moos, now Director of the Colaba Observatory. The two latter gentlemen occupied the positions of Vice-President and Honorary Secretary, respectively, and it was largely due to the exertion of Mr. Moos that sufficient funds were obtained to set the Gymkhana's finances on a firm basis. The then Principal became president, and was helped by a committee, the total number of which was not more than twelve. One of the most interesting features of the Gymkhana's constitution was the power given to the Committee "to invite visitors of distinction other than Elphinstonians to become Honorary Members," while among the original subscribers to its treasury were the Chiefs of Ichalkaranji and Vishalgad, then students of the College, the Hon. Mr. Justice Ranade, the Hon. Mr. Justice Telang, the Hon. R. M. Sayani, the Hon. Mr. Pherozshah M. Mehta and Messrs. F. R. Vicaji and J. Oliver. All these gentlemen were made members for life. Among other contributors were Messrs, N. G. Chandavarkar, R. D. Sethna, R. M. Patel, and J. N. Chiwalla.

Joining the Gymkhana was at first a matter of pure choice with the student, but as the essential importance of well-ordered physical recreation was more clearly recognized a limited compulsion, if we may use the term, was introduced by Mr. Oxenham in 1891. That is, all students were expected to join unless absolutely prevented by the direst poverty. This exception gave rise to many unsatisfactory and inconvenient results, and in 1894, Mr. Hathornthwaite made the compulsion general.

The same gradual process of development has secured the permanent improvement of the Gymkhana ground, which had been put into order in the first instance by means of a sum of money subscribed by the professors and by past and present members of the College. At a subsequent period Government also contributed handsomely to the levelling and general improvement of the cricket field. In 1893 under the acting-principalship of Mr. Hathornthwaite, the earth was levelled and raised and the pitch, which hitherto had been practically unplayable in the monsoon was rendered fit for permanent service. Lastly, in 1895, the garden at the south-eastern corner was removed, the flowers and shrubs in it being presented by the Principal to the Students' Quarters, and the large water pipe to the Gymkhana.

In conclusion, we feel obliged to give expression to certain protests, which have reached us, against the charges of indifference made in the article in connection with the attitude adopted by the professors. None of the latter, we can safely say, are indifferent to the Gymkhana, as is shown by the fact that all afford it their pecuniary support, and of the younger professors those whom health and training permit gladly take part in the actual sports, while others take a keen interest in watching the various matches and tournaments. As to the University Cricket Match with the Parsi team, when it is remembered that the Principal and Professors Müller and Covernton from Elphinstone College, together with representatives from the professional staffs of St. Xavier's College and Wilson College attended the luncheon and watched the game, and are equally ready to patronize similar functions in the future, it wll be seen that the charge of indifference on this point also falls to the ground.

The Teachers' Association of Bombay.

AT a meeting of the Council of the Association, held on the 23rd June, it was resolved to adopt the *Educational Record and Literary Journal* as the medium of communication between the members of the Association.

An election for the Council of the Association took place on the 23rd of July. The following ladies and gentlemen were elected by the votes of the members to form the Council. :—

Mr. F. K. Banáji, M.A., Principal, B. J. P. B. Institution.
,, J. D. Bharda, B.A., Principal, New High School.
,, D. R. Chichgar, Honorary Secretary, Parsi Girls' Schools Association.
Miss A. E. Edge, Principal, Z. B. and M. M's. Girls' High School.
The Rev. Ch. Flink, S.J., Principal, St. Xavier's High School.
Miss M. Hunt, M.A., B.Sc., Principal, Alexandra Girls' High School.
Mr. J. MacDonald, Principal, Scottish High Schools.
The Rev. N. Macnicol, M.A., Principal, F. G. A.'s Institution.
Mr. F. B. Master, B.A., Principal, Fort High School.
Mr. Shaik Faizullabhai, Principal, Anjuman-i-Islam High School.
Mr. D. G. Padhye, M.A., Principal, Goculdas Tejpal High School.
Miss E. Parker, Principal, Byculla Girls' School.
Mr. T. A. Savage, B.A., Principal Cathedral High School.
Mr. D. N. Wadia, M.A., Principal, Sir J. J. P. B. Institution.
Mr. N. G. Welinkar, M.A., LL.B., Professor, Wilson College.

Miss Edge, Miss Parker, the Rev. Ch. Flink, Mr. Bharda and Mr. Welinkar form the Executive Committee. The office-bearers are Mr. James MacDonald, *President*, Mr. F. B. Master, *Treasurer*, and Mr. N. G. Welinkar, *Secretary*.

The Executive Committee held its first meeting on Tuesday, the 9th ultimo, and resolved to subscribe to the following Educational Journals for the use of the members of the Association:—viz., (1) The Practical Teacher; (2) The Practical Teacher's Art Monthly, and (3) The Educational Review, Madras.

At the monthly meeting of the Association on the 5th of August, *two* papers were read on the Teaching of English in the Junior Classes of schools, one by Miss

Parker of the Byculla Girls' School, and the other by Mr. A. S. Shukla, B.A., of the Goculdas Tejpal High School.

Miss Parker's paper, which it is hoped to publish in the next number of the Journal, dealt specially with the teaching of English Grammar, and showed the importance of practically familiarising the minds of children with the fundamental distinctions of grammar, like the Parts of Speech, before introducing them to definitions of Grammatical terms.

The other paper took up specially Reading and Explanation, laying stress on correctness of pronunciation and on an intelligent understanding by the class of the lesson read. The teacher, it was remarked, should not be content with merely giving his pupils the equivalents of words and phrases, but his endeavour should be to acquaint his class with the *ideas* or *objects* of which words are symbols. In other words his aim should be to teach not "words" but "things."

In the discussion which followed the importance of early creating in the minds of children the love of good literature was clearly shown by a lady member.

Other speakers spoke about the need of Indian boys and girls being taken through a wider course of reading than at present was the case. The place and function of translation in teaching English gave rise to an animated discussion. One set of speakers were of opinion that while translation into the Vernacular could not be discarded in teaching English to native boys and girls, yet its only legitimate use was as an aid to the understanding of the English lesson; and therefore it should not be required in a class for the study of English, as an end i[illegible] other set of speakers attached much importance to close and idiomatic translation into the Vernacular during the progress of the English lesson.

The chairman's remarks were suggestive. He said that in education the imparting [illegible]e knowledge of things was of much greater importance than the mere teaching of the meaning of words and phrases. He had a horror of definitions, whether of grammatical terms or of any others. Taking the word "cutlery" as an illustration, he showed how much more important it was for a child to understand that "cutlery" comprises knives, scissors and all instruments for "cutting" than to possess a dictionary definition of the term.

[illegible] G. Welinkar,
Honorary Secretary.

College Correspondence.

DECCAN COLLEGE.

During his late visit to Poona, Prince Ranjitsinghi honoured the College with a visit, and was presented with an address by the students. The address was beautifully printed on satin, and enlosed in a silver casket of Cutch-work, adorned with a suitable inscription. It was presented at a meeting in the new hall, where Prof. Selby introduced the Prince to the students, reminding them of the fact that he had once been a pupil of his own at the Rajkumar College. Mr. Bhat, General Secretary of the Gymkhana, then read the address, which was followed by a few words from the visitor. He recognised two great gifts of England to India: her language, and her taste for games. He valued sport for its power of promoting good feeling, and he would always remember gratefully the kindness which he had received from English people everywhere. He congratulated the students of the Deccan College on their widest enthusiasm for games.

After this, garlands and *pân supâri* were distributed to the Prince and the other guests, who included the Hon. Mr. Giles, the Hon. Mr. Crowe, Capt. Greig, Prof. Fraser, Prof. Kathvate, and Prof. Karkary. On Saturday, September 9th, the Essay Society met to hear a paper from Mr. Bhat on the battle of Kirkee, which was illustrated by a map prepared by Mr. Kanitkar. After the paper was read, the Society walked over the Ganeshkhind hill and identified the principal features of the ground.

GOVERNMENT COLLEGE, JUBBULPORE, CENTRAL PROVINCES.

The College re-opened after the Summer Vacation on the 5th of July. There are 93 students on the Roll in all. The B. A. Classes (Senior or Junior) contain 15 members, and 78 students belong to the Intermediate Classes.

No cricket matches have been played yet this session owing to bad weather. Tennis has been commenced and Hockey will be added to the number of games.

This year, out of the 3 candidates who presented themselves for the Allahabad B. A. Examination, 2 were successful; and out of 5 who appeared for the Calcutta B. A. Examination, 2 passed. In the Intermediate Examination 10 out of 39 were successful.

Educational Notes.

Professor T. K. Gajjar, B.S., M.A., is the third son of Kalyandas Bhanabhai Gajjar, a wealthy, well-known, and highly-respected Vaishya Suthar (carpenter) of Surat. Born in 1863, he passed his matriculation examination in 1879, and had a very brilliant University career. He passed his B. Sc. in 1882 in the first-class, with Chemistry, Botany, and Physiology as his special subjects. He passed his B. A. in 1883, and M. A. in 1884, in Chemistry and Physics, and was Junior and Senior Fellow for two years at the Elphinstone College. He took to the study of law for some time, but had no taste for it, and gave it up. From the beginning, Mr. Gajjar had a technical and industrial turn of mind, and a great desire to see technical schools and colleges established in this Presidency. With this view he made a special study of the subject, and published in 1885 a scheme for establishing a technical institute at Surat, which was much appreciated. In 1886 he was appointed Professor of Chemistry at the Baroda College, and soon afterwards published a pamphlet on the system of National Education for the Baroda State, which was highly spoken of by Sir Raymond West and other distinguished authorities At Baroda he found scope for his talents, and a sympathetic and intelligent master in H. H. the Gaekwar. whom he ultimately persuaded in 1889 to open the Kala-Bhavan. The success that Polytechnic Institute gained under the fostering care of its energetic organiser, Professor Gajjar, is well known. Students trained at the Kala-Bhavan at Baroda are now working the dyeing and other departments in the various mills of Bombay, and many are engaged in professions in Gujerat and Katthiawar. Professor Gajjar was nominated a University Fellow in the year 1893, and edited, under the order of the Gaekwar, the Sayaji Dnyan-Manjusha Series, comprising many important works in the various branches of science and technology. He left the Kala-Bhavan and came to Bombay in the year 1896. He is at present Professor of Chemistry at the Wilson College, and has been University Examiner of the B. A. and other examinations in chemistry. His publications include a work on the various dye-stuffs and dyeing processes. Professor Gajjar is now thinking of using his great practical experience and skill in industrial chemistry for giving a new turn to the mill industry, and is promoting the Progress Mill Company, Limited, for the manufacture of superior fine, fancy, bleached, and finished goods.

DEGREES IN ABSENTIA.

The Vice-Chancellor having appointed the 19th of September 1898, as a graduation day in accordance with Bye-law 36, page 25 of the Bombay University Calendar for 1897-98, the following degrees were conferred *in absentia* at the meeting of the Senate on that date :—B. A., Second Class—Narayen Raghunath Kale, Deccan College. Pass—Narayen Vishnu Bapat and Damoder Keshav Bhide, Fergusson College; Vinayek Vasudeo Bhadkamkar, Shridhar Purshotum Karve, Bhikajee Shankar Moghe, Sidramappa Dundappa Pavte, and Sadashiv Lakshman Soman, Deccan College; Savlaram Krishna Paranjpe, Wilson College; Motilal Sakarlal Thakore, Elphinstone College; and Vallabhram Aditram Trivedi, St. Xavier's College.

SIND COLLEGE AT KURRACHEE.

The Senate also considered an application from the Principal, D. J. Sind College, Kurrachee, on the subject of College attendance during the present term, as Kurrachee is affected by plague.

The Rev. Dr. D. Mackichan proposed that, as recommended by the Syndicate, that for the D. J. Sind College, Kurrachee, the operation of Bye-law 89 be suspended as regards the number of days attendance to be required during the second term of 1897-98, and that such attendance be at the discretion of the Principal of the Institution.

Dr. DaGama,seconded the proposition,which was carried.

THE BHAU DAJI PRIZE.

On the motion of Principal Hathornthwaite, it was resolved that in line 2 of Regulation 1 of the Regulations relating to the Bhau Daji Prize (page 339 of the Calendar) the words " one hundred and eighty " be left out, and the words " one hundred and seventy" inserted in their place.

Dr. T. B. Nariman seconded the proposition, which was carried.

CITY AND GUILDS OF LONDON INSTITUTE EXAMINATIONS.

The results of these important examinations, held at the Victoria Jubilee Technical Institute, Bombay, in May last, have just been received. Of the candidates who presented themselves for examination, fourteen were students of the Victoria Jubilee Technical Institute and out of this number the large proportion of eleven have passed, either in the first or second class. One of the candidates, who had *not* completed his course at the Technical Institute has obtained the pheonmenal success of "First Class in Honours." A result like this is no doubt most encouraging in the interests of technical education in India, as it is well known that Indian students must be more or less handicapped in expressing themselves in English, and particularly when their papers of answers are brought into competition with those of English students trained in England. The next examinations will be held in May 1899, the number of subjects of examination having been increased to 68. The examinations are open to candidates from all parts of India, and it cannot be too generally known that certificates of an Institute like that of the City and Guilds of London (which is the largest examining body in the world) are of special value to young men who are devoting their lives to commercial and manufacturing pursuits.

A list of names of the successful candidates has been posted at the Victoria Jubilee Technical Institute.

CHILDREN'S IDEAS OF HISTORY.

Mr. Earl Barnes, lecturing to the Members of the London Society for the extension of University Teaching, said that the teaching of children had been carried on in a way which might be logical, but which was not the way best adapted to attain the end in view. Supposing the problem to be how to teach reading, they should take the young child and see how he went to work to understand the symbols, what appealed to him most strongly, what was his native line of least resistance, and then they should follow that line of least resistance. He cared not how logical the arrangement of materials might have been in the past, it had been a study based upon the product of the adult mind, appealing to the adult mind, and then imposed upon children of all ages. In the future new methods of teaching would be introduced into schools all over the world, and the various subjects of the curricula would be taught in ways that were extremely illogical from a logical point of view, but which appealed more directly to the child. In history, the principal elements to be considered were time, place, persons, cause and effect, and evidence. Observations had been made in America with a view to ascertaining how these elements appealed to children. A little story was taken, and the attempt made to eliminate from it the time, place, people, cause and effect, and evidence. The story was then submitted to them, as follows:—"There was a king who had a beautiful wife whom he dearly loved, but a fair prince came and took her away to a far country. Then the king and all his men went to fight the prince in a great city walled about with stones. For many a day the king and his men tried to enter it, and they burned it to the ground, so the king got his wife once more." This was the story of Helen of Troy. The children wrote down the questions they would like to ask about it. Under 20 per cent. of the children asked about the element of time in the story. Place was evidently quite an important element in the child's historical perception. The questions were asked, "Who was the king, what was the name of the queen?" and the number of children asking these questions showed the importance they attached to this element in the story. Cause and effect was a very important element. The how and the why of the story came in here. "Why did the king want to get his wife back, if she did not want to come back?" and so on, were the questions asked. From this and other experiments the conclusion had been arrived at that (1) children had very little interest in chronology before ten years of age; (2) that they had a larger interest in places; (3) that they cared little for the description of persons; (4) that their great interest was in persons and in cause and effect, or cause and results; (5) that their interest in original sources developed into a conscious sense of evidence about the age of 13. A test had been submitted to children to find out their critical attitude towards evidence. They were asked to write down something that had happened before they were born, and then to tell how they knew it had happened—to give the evidence. The returns came in from some thousands of children in California. Twenty-five per cent. of them gave hearsay evidence, the kind of evidence that was always ruled out in courts of justice. A certain number said they knew the event had happened because they had read it in books or histories, and then came those who gave a particular source—a document, a relic, or a particular individual.

CHAUCER'S LONDON.

Professor Skeat, in the course of a lecture, on "Chaucer's London," said that the famous name of Geoffrey Chaucer was connected with London in a way of which they all might be justly proud. He was born in London, he held office in London, he died at Westminster, and he was buried close beside Westminster Abbey. The lecturer touched on a great number of points illustrative of life in London in Chaucer's day. Incidentally he mentioned that Smithfield had nothing to do with smith's work but was a corruption of the original name, which meant smooth field. It was called *campus planus* in Latin, and was a great market place for horses, for which its character rendered it very suitable. It was usual for the tradesmen's apprentices to stand at the shop doors touting for custom by continual chatter. Thus the apprentices of those who sold wine said that the Rhine wines were particularly useful in promoting digestion after roast beef had been partaken of. There were numerous laws of the time directed against extravagance in female dress, but they did not seem to have been much heeded. There were other statutes as to the wearing of furs. One way of telling a lady was by the quality of the fur round her neck. A servant was prohibited by law from wearing any fur except a prescribed kind. There were curious laws about bakers and the distribution of loaves. Both brewers and bakers were usually women. The punishment of the pillory was particularly resorted to for the suppression of dishonest tradesmen. One man was put in the pillory for selling a loaf of insufficient weight, another for composing his loaf of unwholesome materials, and a baker's servant was put in the pillory for sticking a bit of iron in a loaf to make it weigh heavier. In some cases a baker was drawn on a hurdle through the streets, on his way to the pillory, with a fraudulent loaf suspended round his neck. One common use of bread was to feed horses with it. Another interesting subject in connection with these old times was the difference in the prices of provisions. In the time of Edward III. a penny would buy as much as 15 pence would buy now, and perhaps as much as 18 pence. "Penny" ale meant ale at a penny a gallon, and "half-penny" ale, ale at a half-penny a gallon. Nearly every house had its sign. These signs were used for purposes of advertisement, and from this custom of hanging out signs came the remarkable phrase "to hang out." "Where do you hang out?" meant "Where do you hang out your sign?" that was to say, "Where do you reside?" Langland alluded in one passage to "benefit of clergy." Taking it as it stood, it seemed as if the benefit of clergy meant that somehow the clergyman might be of some benefit to a condemned criminal, but it did not mean anything of that kind for the word 'clergy' was used in two senses, or rather there were two words both pronounced "clergy," one of which meant the clerical order, and was still in use; the other meant scholarship, learning, clerkship. In the old time when ability to read was not general, it was sometimes possible for a criminal to plead "benefit of clergy"—that was to say, ability to read, and if it was proved that he could read, he was acquitted. John Lydgate helped to illustrate London. He gave his work the title of "The London Lickpenny." Lickpenny meant that it readily picked up a penny—swallowed down money, that was to say. He thought a more appropriate title never was invented. Who was there who did not know the penny 'bus, the penny steamer, the penny ice, and that most remorselessly greedy of all inventions the penny-in-the-slot?

THE ROMANES LECTURE.

The Romanes lecture was delivered by Sir Archibald Geikie, F.R.S., in the Sheldonian Theatre, the subject of the lecture being "Types of scenery and their influence upon Literature." The lecturer said that he proposed to discuss the leading types of scenery that distinguished the British Isles, and enquire how far it might be possible to trace from each of them an influence upon the growth of English literature. The scenery of the country was of three leading types—lowlands, uplands, and highlands, and they would find that each of the three main types had had a perceptible influence on literature. Even the local variations of each type had left their impress on literary history. As examples of the ridges, they might take the North and South Downs and the chain of heights that stretched from Wiltshire into Norfolk. The intervening plains might be illustrated by the Weald of Sussex and by the lower basin of the Thames. Those districts were on the whole fertile, the surface was clothed with meadows, cornfields, and gardens, while trees had been planted along the roads and fields and in abundant patches of copse wood and woodland. The simple childlike delight in nature so characteristic of Chaucer, and the influence of cultivated scenery so conspicuous in him, were readily traceable among his successors. Shakespeare throughout his plays presented not a few reminiscences of his youth among the Warwickshire woodlands. In Milton they saw how the placid rural quiet of the Colne valley inspired the finest lyrics in the English tongue. For a century after Milton's time, poetry in this country ceased to have any living hold on outer nature, but became with each generation more polished and artificial. When at last a reaction set in, the impulse that led to the most momentous revolution that has marked the history of English poetry came in large measure from the writings of those poets, each of whom drew his inspiration from lowland scenery, and, as illustrations of the part played by this scenery in literature, he would cite Cowper, Thomson, and Burns. It was among the uplands that the Border ballads had their birth-ballads which were so full of human incidents as to leave little room for even a background of landscape, but some of the features of the scenery were here and there graphically indicated by a line or even a word. The scenery of the western highlands of Scotland was first brought prominently before the world by the publication of the poems of Ossian, in studying the landscape of which they soon learned that it belonged unmistakeably to Argyleshire. The grandeur and gloom of the Highland mountains, the spectral mists that swept round the crags, the roar of the torrents, the gleams of sunlight on moor and lake, the wail of the breeze among the cairns of the dead, the unmistakeable sadness that seemed to brood over the landscape, whether the sky be clear or clouded—those features of West Highland scenery were first revealed by Macpherson to the modern world. That revelation quickened the change of feeling already begun in regard to the prevailing horror of mountain scenery. It brought before men's eyes some of the fascination of the mountain-world, more especially in regard to the atmospheric effects that played so large a part in its landscape. It showed the titanic forces of storm and tempest in full activity and yet there ran through all the poems a vein of infinite melancholy. The pathos of life manifested itself everywhere, now in the tenderness of unavailing devotion, now in the courage of hopeless despair. One other mountainous district in Britain—that of the English lakes—claimed attention for its influence on the progress of the national literature. This mountainous tract, though it measured only some 32 miles from west to east, by 23 from north to south, rose to heights of more than 3,000 feet, and as it sprang almost directly from the margin of the Irish Sea, it lost none of the full effect of its elevation. Its fells presented a thoroughly highland type of scenery, and had much of the dignity of far loftier mountains. Their sky-line often displayed notched crests and lofty peaks, while their craggy sides had been carved into dark cliff-girt recesses, often filled with tarns, and into precipitous scaurs, which send long trails of purple scree down the grassy slopes. Such was the scenery amid which William Wordsworth was born and spent most of his long life. Thence did he draw the inspiration which has done so much to quicken the English poetry of this century, and which has given to his dales and hills so cherished a place in our literature. While they recognized the potent influence which the scenery of the country had exerted on the progress of literature they could look forward to a fresh extension of that influence as the outcome of geological investigation. The bond between landscape and literature would thus be drawn closer than ever. Men would be taught that beneath and behind all the beauty of our lowlands, our uplands, and our highlands, there lay an inner history which, when revealed, would give to that beauty a fuller significance and a new charm.

Reviews.

Elementary Conics, by W. H. Besant, Sc.D., F.R.S.; G. Bell & Sons, 2s. 6d.

The appearance of the name of so distinguished a mathematician as Dr. Besant on the title-page is a sufficient guarantee for the soundness and value of this book. The *Elementary Conics* is merely a reduced form of the author's larger work, *Conic Sections treated geometrically*, which has been in common and most popular use in Schools and Colleges the last 30 years, and is an unaltered reprint of the first eight chapters of the latest edition; and the abridged work comprises the whole extent of reading which is generally undertaken in colleges in this country or which is required in any of the examinations of the University of Bombay. The cheapness of the book (reduced from 4s. 6d. to 2s. 6d.) will be a great recommendation in the eyes of poor Indian students, while its excellent type and well-executed diagrams are, as usual, worthy of the Cambridge University Press and leave nothing to be desired. It seems a pity, however, that, when this new and smaller manual was being prepared by the author, blemishes manifest to any teacher who has used the larger book, were not removed, and that similarly obvious omissions were not supplied. A more scientific treatment of *diameters* would surely have been to introduce them at an earlier stage and in connection with the conic generally, instead of separately defining them for the parabola, ellipse and hyperbola, and then investigating properties for each conic which might once for all have been proved for all conics. In the chapter on the ellipse, prop. XVIII, with its trying figure, might, with advantage, have been placed after prop. XIX, and Taylor's short proof with easy figure might then have been substituted; the corollary to prop. XXII is really a proposition and a troublesome one to unassisted students, and should have been proved at length and a special figure supplied, and the same remarks apply to the corollary on prop. XXVIII. In the chapter on the hyperbola a more thorough investigation with additional figures is wanted in art. 101; propositions true for the ellipse should have been proved separately for the hyperbola and with separate figures, and should not have been dismissed in the summary way adopted in prop. XIX, XXVII, XXX; art. 107 and the corollary to prop. XXV should have been proved at length; the proof given of prop. XVI is unnecessarily difficult, while the figure is repulsive, and an easy treatment of the proposition, similar to that suggested for prop. XVIII of the ellipse might readily have been substituted. In spite, however, of these little drawbacks, Besant's Elementary Conics is a most admirable manual and will be the standard book *par excellence* on the subject; the methods employed are neat and suggestive; the examples are abundant and surpass those of any other collection both in number and attractiveness; all possible information on geometrical conics which students can ordinarily require is supplied in a concise and most interesting form, and no better text-book can be recommended for use in an Indian college.

Examples in Analytical Conics, by W. M. Baker, M.A.; G. Bell & Sons, 2s. 6d.

This unpretending little volume contains a well-arranged collection of examples on analytical geometry, and professes to have been intended principally for Woolwich and Sandhurst candidates, but will be of use to a wider range of students and especially to those who are reading the subject privately and without a tutor's assistance. If the book errs, it is on the side of simplicity and because so little knowledge seems to be expected from students, while hardly sufficient scope is perhaps afforded for the clever employment of artifices and algebraical manipulation such as is familiar to one who has studied Smith's treatise. The examples in the early part of each chapter are most elementary and may be worked rapidly and with profit by beginners; while in the latter part more difficult examples are provided in sufficient number for more advanced students and chaps. VI, VII and VIII afford an excellent selection of this type of problems. Adequate attention is not often paid to curve-tracing, and to devote a chapter (Chap. XI.) by itself to this attractive branch of the subject is an admirable innovation. The book may be confidently recommended as a useful repertory of problems of a simple character and as a serviceable auxiliary to students reading the ordinary text-books on the subject.

THE VICTORIAN ERA SERIES.

The Rise of Democracy, by J. Holland Rose, M.A.

We criticise with smug complacency the struggles of the Athenian demos or the Roman plebs in their efforts to free themselves from aristocratic tyranny, and we find no difficulty in discovering the incompleteness of their success. This much we do even as school-boys, but how many of us in maturer years can definitely realize that it has taken the British citizen a thousand years to arrive within measurable distance of the freedom enjoyed by an Athenian democrat or of the independence claimed by a Roman plebeian, and that such progress, as has been made, is chiefly due to the reformers of the present century. *Go back one hundred years and you will find that the so-called 'British citizen' had about as much real share in the government of his country as the Russian has now in that of his. A would-be despotism plus a practical oligarchy, tempered only by the capricious outbursts of a prejudiced and ignorant mob,* decided the fate of the nation in accordance with well-worn maxims of dynastic and party policy. The king was only not divine because he has so often proved himself a fool, and a lord was still a thing to be gaped at with an almost religious awe. The rights of free discussion, of free combination for business purposes, with many other of our modern 'rights,' were openly and daily trampled on. Intimidation, corruption and bribery reigned supreme in all elections and the venerable constitution was indeed no more than what the radicals of Birmingham proclaimed it, a venerable fraud.

The change from this welter of antiquated survivals, class prejudices and general ignorance to the self-assured enlightenment of latter-day democracy is what Mr. Rose has undertaken to trace in his sketch, 'The Rise of Democracy.' The historical facts he has dealt with very clearly and concisely, and, withal, in an impartial spirit, nor is picturesque detail altogether wanting. Mr. Rose tries to show—laudably enough, even if not quite successfully—that British democracy is no relation of 'the red fool-fury of the Seine,' but comes of quite another and much more respectable ancestry, no less than the oldest institutions of our Teutonic fore-fathers. The lines on which it has developed have been *evolutionary*, not *revolutionary*, and we of to-day are simply expressing in modern terms the views which the primeval Anglo-Saxon put into practice on the border of the Hercynian forest. This may be so, of course; we do not care to dogmatize as to the idiosyncracies of the early Angle or protoplasmic Saxon, but we cannot help feeling that, like *alfana* in its derivation from *equus*, Democracy in its transmigrations *a bien-changée sur la route.*

And we wonder whether a *real* Radical, or a confirmed Socialist would consider Mr. Rose's book a very sympathetic or even encouraging survey of the results achieved and of the prospects of the future. Taking as our data the utterances of that self-appointed Nestor of Radicalism, Mr. Labouchere, and the programmes thrust in our faces by inconsiderate persons like Mr. Kier Hardie or Mr. Tom Mann, we suspect that by those democrats who are as yet uncorrupted with the flesh pots of Egypt or have not fallen into bondage to the Philistines, Mr. Rose would be deemed a Laodicean, or something worse. Has he not indeed tried to drag the red herring of 'imperialistic foreign policy' across the advance of the democracy to absolute dominion? And does he not think that democracy means 'rule by the *whole* people' instead of what every one—'as is any one'—uses it to mean, viz. 'rule by the (*common*) people'?

It is difficult, however, to please everybody, especially when one tries to be impartial. If Mr. Rose fails to satisfy the aspirations of the ardent democrat, he can console himself by the reflection that he is simply paying the penalty of the judicious externality of his point of view. We could wish, however, that Mr. Rose had made concessions to democratic fashions in language. "Viewy schemes" may be a phrase perfectly in consonance with the ideas and expressions of the readers of democratic weeklies but it is not English. His taste moreover in metaphor is a little too pronounced; a continuous stream of analogies is apt to produce an effect not unlike that of a rapid succession of incandescent lights. The patient is dazzled and darkened.

FOREIGN CLASSICS FOR ENGLISH READERS.

Voltaire, by General Sir E. Hamley, K. C. B., K. C. M. G.

"He said some shocking things against Moses and against Shakespeare." Such is the report given by a Mr. Sherlock of a conversation held by him with Voltaire in the days of his decrepitude. And the report sums up the popular English verdict. A few indeed in these days of University-extended knowledge have also been told that Voltaire was a prime cause of the French Revolution, but apart from these libels (which are generally taken for granted) and a passing acquaintance with the titles of Candide and Zadig, what just conception of the greatest French man of letters have we Englishmen? General Hamley has striven to make us understand him better, and that, too, by a method which is little short of an ingenious flattery of our insular pride. Voltaire (the good General would have us believe) atoned for his unfortunate disrespect for Shakespeare by a profound admiration for the British constitution, as he knew it, and a sincere appreciation of British intellect and character. Nay more so far from being the Mephistopheles responsible for the ruin of French monarchy and the subversion of the Christian religion, Arouet l. j. (le jeun) would have condemned the one and lamented the other. Did he not, in fact, 'apotheosize', the *Grand Monarque* and live as well as die in an odour of (Deistic) sanctity?

General Hamley's apology is interesting though, we fear, we must add, not convincing. It is couched in bright and vigorous language, and some of the verse translations are very tolerable. His grasp, however, of Voltaire's philosophy in its relation to optimism and of the real influence of Voltaire upon his age seems to us distinctly deficient.

London, by Mr. J. C. Meiklejohn, B. A.

This little book contains a short history of the capital of the empire, the career of which is traced from the earliest times to the present century. Much information is presented in a brief compass, and the facts (which are often of a somewhat inaccessible kind) are well arranged and derived from sound authorities. Most worthy of attention is the attempt to trace the history of the City's self-government from the conquest downwards; next the description of the topographical limits of the town at different periods, and last (but not least in importance) the accounts of social manners and customs.

To any one lecturing on such books as Thackeray's 'Esmond' or 'The Four Georges', or Scott's 'English' novels, on Shakespeare and his times, or on Chaucer and mediæval England, Prof. Meiklejohn's 'London' should prove a useful manual of reference, while we cannot too strongly encourage students to take advantage of a book which will furnish them with a comprehensive survey of England's chief city and its fortunes, and enable them to obtain that more intimate knowledge of English life and history which they so greatly desire and so often lack.

Arithmetic arranged by A. E. Layng, M. A., and Published by Blackie and Sons, Limited.

This is an admirable Arithmetic in every respect. There can be no question about its being the work of a thoroughly practical teacher. There is nothing specially new in it, but it combines many excellences of the best books on the subject. It is probably the best book of its kind for Indian Schools.

Higher Arithmetic and Mensuration by Edward Murray, and published by Blackie and Son.

This is a book specially adapted for advanced students, and so does not come within the category of ordinary

High School works, yet every teacher of Arithmetic would do well to provide himself with a copy as no other text book extant contains all that this does. Students of Technical Colleges which teach Arithmetic will find the book of sterling worth. The Chapter on the theory of numbers are especially valuable.

Elementary General Science by A. T. Simmons, B. Sc. (Lond.) and *Lionel M. Jones, B. Sc. (Lond.)*, published by MacMillan and Co.

This is a work of great excellence. The Madras University might do well to recognize it as a text book for their Matriculation Examination, and the Bombay University as a text book for physics and chemistry for the School Final Examination. The lessons are clear, and the summing up at the end of each chapter is luminous and definite.

Pitman's Manual of Business Training, published by Sir Isaac Pitman and Sons, Limited, is an excellent compendium of information on commercial subjects and aims at providing a simple guide to the most approved methods of every day business. While this book does not pretend to enter into the higher and more intricate forms of business, modern business has grown so complex that a general knowledge of its laws, customs, and tendencies is necessary to a comfortable existence.

Nesfield's English Grammar, published by Messrs. MacMillan and Co., is divided into three parts, Modern English Grammar, Idiom and Construction, and Historical English word-building and derivation, with appendices on Prosody, Synonyms, and other subjects. The third part, from its importance, has more space allotted to it than the others.

The writer is known to be an experienced teacher, and this gives a practical and scholarly value to his work above most other English Grammars. In the preparation of this work the author was undesignedly acting up to the spirit of the directions given in the London matriculation Directory. A very good set of questions has been printed at the close of the part to which it relates, so that a student may be able to test his own knowledge as he advances.

Medhurst's Book-keeping by Double Entry, published by Geo. Bell and Sons. In examinations for the Public Works Accounts and others of a like class this work should prove highly serviceable. It seems eminently practical. A capital exercise from one of the Society of Art Examinations has been given as an example and fully worked out. One with any faculty whatever for book-keeping ought to find this work sufficient for acquiring a good knowledge of the subject.

Books Received.

We have also received the following new books and new editions, some of which will be noticed later :—

Messrs. George Bell & Sons.—Bohn's Standard Library, The Prose Works of Jonathan Swift, D.D., edited by Temple Scott, with a Biographical Introduction by W. E. H. Lecky, M.P.

Tale of a Tub and other early Works, Vol. I.

Journal to Stella, Vol II. A.D. 1710-1713.

Writings on Religion and the Church, Vol III.

Commercial Arithmetic by C. Pendlebury, M.A., and W.S. Beard, F.R.G. S. 250 pages. 2s. 6d.

Personal Narrative of a Pilgrimage to Al-Madinah and Meccah, by Capt. Sir Richard F. Burton, K.C.M.G., F.R.G.S., &c., edited by his wife Isabel Burton, with an Introduction by Stanley Lane-Poole, Vols. I and II.

Messrs. Adam & Charles Black.—Scott's Poetical Works Rokeby, with the Author's Introductions, Notes, and various Readings. 1s.

The Talisman (Sir Walter Scott Continuous Readers) by W. Melven, M. A. 1s. net.

The English People in the Nineteenth Century : a short history by the Rev. H. De B. Gibbins, D. Litt., M.A. 2s.

XIX.—Century Prose (Literary Epoch Series) by J. H. Fowler, M.A. 1s. net.

The Age of Richelieu as described by French contemporaries and French Historians (Historical French Readings) Advanced Texts edited, with Introduction, Notes, Exercises on the Text, and subjects for Essays, by A. Jamson Smith, M.A., and a Preface by Clovis Bevenot, M.A. 2s. net.

A Geography of North America including the West Indies by Lionel W. Lyde, M.A., F.R.S.G S. 1s. net.

A Midsummer—Night's Dream by William Shakespeare Edited by L. W. Lyde, M.A. 1s. net.

The Conquest of Italy and the Struggle with Carthage, 753 to 200 B. C. (Historical Latin Readers) by E. G. Wilkinson, M.A. 2s.

King Lear by William Shakespeare edited by P. Sheavyn, M.A. (London). 1s. net.

A Geography of the British Isles by Lionel W. Lyde, M.A., F.R.S.G.S. 1s.

Messrs. Blackie & Son.—Selections from Taine edited by Francis Storr, with an Introduction by C. Sarolea. 1s. 6d.

A New Sequel to Euclid Part I. by W. J. Dilworth, M.A., T.C.D. 1 s.

Messrs. William Blackwood & Sons.—Foreign Classics for English Readers edited by Mrs. Oliphant.

Molière by Mrs. Oliphant and F. Tarver, M.A. 1s.
Goethe by A. Hayward. 1s.

Messrs. C. J. Clay & Sons.—The Method of Teaching Modern Languages in Germany being the Report presented to the Trustees of the Gilchrist Educational Trust on a visit to Germany in 1897, as Gilchrist Travelling Scholar, by Mary Brebner, M.A.

Messrs. Longmans, Green & Co.—English Grammar by M. W. Jennings revised by J. G. Jennings, M.A. (Oxon.). 1s. 8d.

The Rebman Publishing Co., Limited.—Rheumatism and its treatment by the use of the Percusso—Punctator, by J. Brindley James, M.R.C.S. (Eng.). 2s.

Some points in the Anatomy, Pathology, and Surgery of Intussusception, by D'Arcy Power, M.A., M.B.(Oxon.), F.R.C S. (Eng.). 4s.

On Cardiac Failure and its Treatment with especial reference to the use of Baths and Exercises by Alexander Morison, M. D. (Edin.), F. R. C. P. (Ed.). 10s.

Messrs. Whittaker & Co.—A School Geography by Charles Bird, B.A., F.G.S. 2s. 6d.

Superintendent of Government Printing, Calcutta.—Agricultural Series, No. 24. Soils. The Agricultural Ledger 1898 No. 2. A Note by Dr. J. W. Leather, on the Composition of Indian Soils.

Medical and Chemical Series, No. 12 (Medicinal Products.) Aconitum Ferox. The Agricultural Ledger 1898 No. 3. Contributions to our knowledge of the Aconite Alkaloids on Pseudaconitine, by Wyndham R. Dunston M.A., F.R.S., and Francis H. Carr, A. I. C.

Vegetable Product Series, No 39 (Food Substances) The Agricultural Ledger 1898, No. 4. Castanea Vulgaris Note on the Cultivation of the Spanish chestnut in the Himálayas, by Sir E. C. Buck, Kt., C.S.I. 3 ans. or 3d.

Veterinary Series, No. 26. Oxen (Cattle Diseases.) The Agricultural Ledger 1898 No. 5. Reports by Dr. A. Lingard, Vety-Lieut. F.S.H. Baldrey, Vety-Capt. W. R. Hagger, Vety-Capt. H. T. Pease, Vety-Capt. F. Raymond, Vety.-Capt. G. H. Evans, on Professor Koch's Methods of immunising Cattle against Rinderpest. 9 ans. or 9d.

Vegetable Product Series, No. 40 (Medicinal Products.) Oroxylum Indicum (seeds.) The Agricultural Ledger, 1898—No. 6. A Review of correspondence on the subject with notes giving results of an analysis of the Damree Seeds, their reputed use in Almora as a medicine for cattle by Mr. D. Hooper. 2 ans. or 2d.

Vegetable Product Series, No. 41 (Food Substances.) Piper Nigrum (Black Pepper.) The Agricultural Ledger, 1898—No. 7. A Note by Mr. Bhupendra Chandra Basu, with an Introduction by Mr. D. Hooper on Cultivation of Black Pepper in Assam. 2 ans. or 2d.

Notifications.

PERMANENT NOTIFICATION.

NO. 3959 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
19th September 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. GILES,
Director of Public Instruction.

Scholarships.—
Rules for Government—in European Schools.

No. 1013.

EDUCATIONAL DEPARTMENT,
Bombay Castle, 23rd August 1898.

Letter from the Director of Public Instruction, No. 2308, dated the 16th July 1898.

"With reference to Government Resolution No. 591 of March 11th, 1890, I have the honour to state that in that Resolution Government sanctioned Provisional Rules for Government scholarships in European schools. Those rules have now been in force for 8 years and their suitability has therefore been sufficiently tested.

"2. I lately received a representation from the Reverend Mr. Hill, Manager of the Cathedral High Schools, in which he pointed out that the rule for the Senior Scholarships, which made the presentation of a Vernacular compulsory (*Vide* Appendix B to the Provisional Rules), bore very hardly upon the European community, and diminished the competition for the scholarships in question.

"3. I sent the letter to the Educational Inspector, Central Division, for report and asked him to consult the representatives of leading European schools, and finding that there was a general consensus of opinion in favour of Mr. Hill's view, I invited the Managers of leading schools in Bombay to a conference, which was held at the Elphinstone High School on the 5th instant. There were present at the meeting—

The Director of Public Instruction—Chairman.
Mr. Prior, Educational Inspector, Central Division.
Mr. Adair, Principal, Elphinstone High School.
Miss Edge, Church Mission Society's High School for Girls, Girgaum.
Mr. James MacDonald, Scottish High School, Byculla, and President, Teachers' Association, Bombay.
Father Flink, St. Xavier's College.
Father Weimgart, St. Mary's School.
Mr. Ezekiel, St. Peter's School, Mazagon.
Mr. Savage, Cathedral High School.
Mr.Christie, Secretary, Scottish Orphange Association.
Mr. Anderson, Head Master, Scottish Orphanage.

"4. It was the unanimous opinion of all present that subject 4 of the subjects of Examination for Senior Scholarships should be modified by the admission of Latin and French side by side with the Vernaculars, and that the test in these languages should approximate to that laid down in Standard VI of the Standards for European Schools.

"5. It was further unanimously agreed that an addition to Rule 4 of the existing rules was desirable to the following effect:—

'Successful candidates who do not wish to claim the money value of the scholarships will be designated as "honorary scholars" and their names published in the *Government Gazette.*'

"6. These were the results of the conference, and I now proceed to state shortly the reasons which led to the proposals for change.

"A.—As regards a compulsory Vernacular I pointed out that the Department and Government had instituted the test in the hope that the attention of European children would be drawn to the study of the Vernaculars of the Presidency, and that they would be assisted by a knowledge of them in their after career as Government servants or otherwise. To this it was replied that the Vernaculars still remain in the scheme, so that schools which, like the Education Society's Schools, Byculla, make special provision for teaching a Vernacular will not be placed at a disadvantage. On the other hand, schools which do not wish to teach the Vernacular will be able under the modified scheme to send up candidates for the scholarship examination from which they are debarred at present.

"Secondly, it was urged that the schools generally cannot teach a Vernacular with good effect to children who are constantly moving from one part of the Presidency to another, who may be in Dhárwár one year, in Bombay another, and in Poona or Karáchi in another.

"Thirdly, it was maintained that the pay allotted to the lower posts of the Government service, in which a knowledge of the Vernacular would be useful, is so low that Europeans and Eurasians cannot accept such service, and that as a matter of fact they do not seek such service. In this connection I would request a reference to this Office No. 2027 of July 10th, 1897, quoted in the preamble to Government Resolution No. 352 of March 19th, 1898.

"Fourthly, it was pointed out that boys and girls spend a great deal of time over the study of the Vernaculars to little effect, and that if they should hereafter enter Government service, there is no guarantee that they will either do work which will require a knowledge of the Vernacular, or that they will be employed in that part of the Presidency in which the Vernacular which they have studied is in use. It was unanimously agreed that a young man or young woman with a good general education could more profitably study a Vernacular after their appointment to Government service and when brought into actual or daily contact with that Vernacular.

"My own practical experience of European schools throughout the Presidency leads me to think that the arguments of the School Managers are unanswerable, and that it is obviously not desirable that Government should insist on a test which practical School Managers decline to accept, and should cripple the scope of the scholarship scheme for the sake of a theory which experience has shown to be generally unworkable.

"B.—As regards the addition to Rule 4, it was pointed out that sometimes scholarships were held by the children of rich parents, the money value of which would be a great boon to those who were poorer. It is obvious that even those who are well-to-do do not despise the receipt of scholarship money, but the addition we propose leaves it at the option of any parent to be satisfied with the honour and to leave the money for those who need it more.

"7. I trust that what I have written will show Government that there are good reasons for the changes proposed, which are embodied in the amended draft rules attached. I have only to add that apparently in 1887 there was an objection to assimilate scholarship tests with any recognized standard of the Code. As a matter of fact the junior scholarship scheme is practically Standard IV, and the senior scheme is standard VI, altered only in the 4th head. Under the revised proposals, which I submit, the scheme for the senior scholarships will be almost identical with Standard VI, but not quite so as Sanskrit, Persian and German are omitted from the 4th head. These subjects are, practically, not taught in European schools.

"8. There is not time to alter the rules for the current year, but if the proposals are approved, the new rules will come into effect in 1899 and may, I think, be published as permanent rules and no longer be considered provisional."

RESOLUTION.—The proposals mentioned in paragraphs 4 and 5 of the Director of Public Instruction's letter are approved.

2. The amended rules should be published in the *Government Gazette*. They will come into force from the 1st January 1899.

R. B. STEWART,
Acting Secretary to Government.

To
THE DIRECTOR OF PUBLIC INSTRUCTION.

No. 3508 of 1898-99.
POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION
31ST AUGUST 1898.

MEMO.

Copy with amended rules for the Government Scholarships in European schools printed at pages 766-767 Part I of the *Bombay Government Gazette*, dated August 25th, 1898, forwarded to the Manager of the *Bombay Educational Record and Literary Journal* for publication in the next number of the *Record*.

E. GILES,
Director of Public Instruction.

RULES FOR GOVERNMENT SCHOLARSHIPS IN EUROPEAN SCHOOLS.

1. Scholarships are of two grades, Junior and Senior. Junior Scholarships are of the value of Rs. 5 per mensem and Senior Scholarships are of the value of Rs. 10 per mensem. Seven Junior and seven Senior Scholarships are offered annually, three of each kind being awarded at Bombay, two at Poona and two at Karáchi. Both boys and girls are eligible for Scholarships, but candidates must be of European or Indò-European descent.

2. The Scholarships are open to candidates from any school under the supervision of the Bombay Educational Department, but no candidate will be allowed to compete who has not been a *boná fide* student of the school for at least 12 months immediately preceding the examination, or full academical year.

3. The examination for the Scholarships will be held in the month of September of each year. No candidate above the age of 12 years on the 1st of September will be eligible for the Junior Scholarships and no candidate above the age of 15 years on the 1st of September will be eligible for the Senior Scholarships.

4. The Scholarships will be awarded by a Committee to be appointed by the Educational Inspector, on the results of the separate examinations held at the three centres. The names of the successful candidates and the schools at which they were prepared will be published annually in the *Government Gazette*. Successful candidates who do not wish to claim the money value of the Scholarships will be designated as 'honorary scholars' and their names published in the *Government Gazette*.

5. Applications for permission to compete at the examination must be made in the printed form appended (*see* Appendix A). The form will be supplied by the Inspector on application. An examination fee of Rs. 2 will be charged to each candidate for a Junior Scholarship and of Rs. 4 for each candidate for a Senior Scholarship.

6. The examination for the Scholarships will be in the subjects mentioned in Appendix B.

7. Junior Scholarships are tenable for two years and Senior Scholarships for three years from the 1st of January succeeding the examination conditionally on the regular attendance, good conduct and satisfactory progress of the holder at any public institution* which is under the supervision of the Bombay Educational Department and is recognized by the Department as teaching a course prescribed by Government. No scholarship shall be withdrawn from its holder for misconduct or for any other cause without the sanction of the Director of Public Instruction, which should be obtained through the Educational Inspector. All scholars must be presented before the Government Inspector at the annual inspection of the schools which they attend.

8. The holder of a Scholarship will be liable at any time to be examined by the Educational Inspector and on

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*A public institution is an institution which is open to Government inspection and submits annual returns to the Educational Department.

proof of unsatisfactory progress to be deprived of his Scholarship.

9. The Scholarship must be drawn quarterly in arrears upon printed bills† signed by the holder, and countersigned by the Head Master of his school, and the holder of a Scholarship cannot change his school without the sanction of the Educational Inspector.

10. Two Scholarships cannot be held together.

APPENDIX A.

To

THE EDUCATIONAL INSPECTOR.

SIR,—I request permission to compete at the next scholarship examination to be held at______

I am, Sir,
Your obedient servant,

(Name in full)______
(Age next birthday with date of birthday)______
(Name of present school)______
(Post office address)______
(Enter day and year of application)______

Certificate by the Head Master of the Applicant's School.

I certify that______has been a *boná fide* student in my school for the last______; that his age, as above entered, is, to the best of my knowledge and belief, correct; and that he is of European or Indo-European descent.

______
Head Master of______

Date______189 .

APPENDIX B.

Subjects of Examination for Junior Scholarships:—

1. *Arithmetic.*—Up to and including Simple Proportion and Vulgar Fractions.
2. *English.*—Reading, with Explanation and Parsing, not less than 200 pages of easy prose. Repetition of classical Poetry, not less than 200 lines to be learnt by heart.
3. Writing to dictation in small hand, spelling and handwriting to be considered.
4. Outlines of Indian History, General Geography of Asia and general knowledge of Physical and Political Geography of India.

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†The form of bill is given in Appendix C.

Subjects of Examination for Senior Scholarships:—

1. *Arithmetic.*—Up to and including Compound Interest, Discount, Profit and Loss, and either Euclid 26 Propositions of Book I, or Algebra 4 rules Integral.
2. *English.*—Reading with knowledge of meaning of part read, 250 pages of Prose, and 750 lines of Poetry. Questions in Parsing and Syntax in the Analysis of simple sentences and easy Etymology to be asked; 350 lines of the Poetry to be learnt by heart. Writing a letter on a simple subject.
3. Outlines of History of England and History of India. Physical and Political Geography of India and adjoining countries. An outline map of any country of Asia to be drawn from memory, the chief boundaries, mountain ranges, rivers and cities to be marked on the map.
4. Second Languages, *i. e.,* either Maráthi, Gujaráti, Kánarese, Sindhi or Hindustáni *vivâ voce.* Translation with easy Parsing from Fourth Reading Book (Fifth Gujaráti) or a Hindustáni book of equal difficulty, or Latin or French as in Standard VI of the Standards for European Schools.

APPENDIX C.

FORM OF SCHOLARSHIP BILL.

Her Majesty's Government of Bombay.

Bill for Scholarships for the Quarter ending________189 .

Name of Holder in full.	Monthly rate of Scholarship.	Amount payable.

Certified that each of the above-named Scholars was regular in attendance, diligent and well-behaved during the quarter for which the scholarships now claimed are due.

____

______________189 . Head Master.

Passed for Rupees ____________________

Educational Inspector,
____________Division.

______________189 .

By order of His Excellency the Right Honourable
the Governor in Council,
R. B. STEWART,
Acting Secretary to Government.

NOTIFICATION.

THE subjoined Government Resolution, Financial Department, No. 4120 of 9th September 1898 is published for the information of Educational Officers.

Poona, Office of the
Director of Public Instruction,
9th September 1898.

E. GILES,
Director of Public
Instruction.

Exchange Compensation Allowance.
Decision that Rule V (*b*) of the Exchange Compensation Rules applies only to persons appointed under written contract in India.

No. 4120.

FINANCIAL DEPARTMENT.

Bombay Castle, 9th September 1898.

Resolution of the Government of India, Finance and Commerce Department, No. 3692-Ex., dated 22nd August 1898:—

"Read again—

Resolution by the Government of India, Finance and Commerce Department, No. 2422-Ex., dated the 31st May 1897, and the revised rules for the grant of Exchange Compensation Allowance appended thereto.

Read also—

Despatch from Her Majesty's Secretary of State for India, No. 63 (Military), dated the 23rd June 1898.

RESOLUTION.—Clause (*b*), Rule V of the rules cited in the preamble, runs as follows:—

'Exchange compensation is not admissible to persons serving under a contract in which their allowances are definitely fixed, which is not preliminary to employment in one of the regular services of the Government and five years of service under which have not elapsed.'

With reference to a recent despatch from Her Majesty's Secretary of State for India, His Excellency the Governor General in Council is pleased to direct that the following note be inserted after this clause:—

'*Note.*—This clause relates only to persons appointed under a written contract in India. A European so appointed in England will, under paragraph 3 of the Resolution publishing the rules, be entitled to exchange compensation allowance if his salary is not fixed in sterling, and there is nothing in his agreement to exclude him from the allowance.'

ORDER.—Ordered that the foregoing Resolution be published in the *Gazette of India*, and that it be circulated to all Local Governments and Administrations, to all Departments of the Government of India, to Heads of Departments subordinate to the Financial Department, to the Comptroller and Auditor General, and to all Accountants General and Comptrollers."

RESOLUTION.—Copies of the Resolution of the Government of India should be forwarded to all Departments of the Secretariat and all Heads of Offices under the Revenue, Financial, Judicial, Political, General, Educational, Marine and Ecclesiastical Departments for information and guidance with reference to Government Resolution No. 2706, dated 23rd June 1897.

H. S. LAWRENCE,
Under Secretary to Government.

List of appointments in the Educational Department from the 16*th August to the* 15*th September* 1898.

29*th August* 1898.—Mr. M. N. Adhyaru, B. A., 3rd Assistant, S. J. J. High School, Surat; and Head Master Palanpur High School, is appointed 1st Assistant Master, Nariad High School.

3*rd September* 1898.—Mr. V. A. Moghe, 10th Assistant, Dhulia High School, and sub *pro tem.* 10th Assistant, Belgaum High School, is appointed 12th assistant Belgaum High school.

5*th September* 1898.—The following appointments are made in the Poona High School:—

Mr. G. A. Sahasrabudhe, 15th Assistant, to be 13th Assistant.

Mr. K. V. Ranade, to be 15th Assistant.

13*th September* 1898.—M. R. Khandekar is confirmed as gymnastic Teacher in the Dharwar Training College, from 1st November 1897.

Poona, Office of the
Director of Public Instruction,
20th September 1898.

E. GILES,
Director of Public
Instruction.

Established 1864—1894. *Re-issued* 1898.

The Bombay Educational Record And Literary Journal.

Vol. XXXI.] NOVEMBER 1898. [No. 5.

A Post Graduate University for India.

MR. J. N. TATA'S PROPOSAL.

Mr. Tata's generosity is princely, and the value of his proposal beyond all price. Not only has he realized the inadequacy of those fortuitous combinations of incongruous atoms, miscalled here in India 'Universities,' and inflicted for no very obvious offence upon the 'suffering millions' of this empire, but he has, at the same time, come forward to supply a remedy. Nor is this all. The remedy is actually the right one, and yet Mr. Tata is no educationalist, but a mere millionaire! The uncultured man of commerce has rushed in where the hierarchy of learning feared to tread or at least went delicately as those who fear lest the ground be made too hot for them. Of course, the trifling advantage of material wealth is on Mr. Tata's side, but the dazzle of '*banausic*' lakhs should not blind our eyes to the surpassing originality of thought and the supreme moral courage that the conception and promulgation of this idea evince. In the face of the prevailing indifference outside and the complacent self-satisfaction inside the educational would, it is not easy to propound and to carry ideas of reform. It *is* easy to find fault, while the construction of far-reaching and Utopian dreams is still easier and affords a pleasing and harmless exercise to the imagination, and one peculiarly agreeable to the intellectual products of our new Indo-European civilization. Yet withal it is an exercise stale and unprofitable, for the material basis from which the start is to be made is usually blacking, and in this matter-of-fact world, if they are ever to be of any practical use, visionary projects need to undergo a process of 'precipitation' by which the more substantial elements are reduced into a workable form. Now, in education the most necessary elements are moments, men, and money—and the greatest of the three is money. All honour, then, to Mr. Tata who has bestowed on us at any rate the last and chief desideratum. With time you can educate anybody, or, at all events, his descendants; witness the Rev. John Creedy of West African fame. No doubt (as in the case of the lamented Creedy) atavism play nasty tricks sometimes, and occasionally time itself solves your problem for you in its own way, by wiping out the *vilia corpora* of the educational experiment. But cases such as these are but incidents. Go on long enough and education will certainly produce a result which may be surprising, may be unappreciated, but will undoubtedly be a variation on the monotony of previous ignorance, and in so far as it is a variation, wholesome and pleasing. However, something more than simple duration is required. To produce the maximum of effectiveness from your reforms, you must study the 'psychological moment' for their introduction. Now, has Mr. Tata hit that moment? The answer must be left in abeyance for a while until we have considered the whole circumstances of the situation.

Men, we have said, were the second essential, and by *men* we mean not *homines* but *viri*. Teachers (of a sort) are only less plentiful than those who are to be taught, and we do not anticipate any failure of either crop in India, as yet. But teachers of *the* sort required are not to be picked off every bush, so that we are led to ask, 'Has Mr. Tata got the men'? The various influential personages enrolled in the circular are, we are well aware, citizens of renown,—men whose fame is proclaimed in a variety of tongues, Christian and otherwise. Excellent persons for countenancing a respectable movement like the present, students some of them of comparative education, and all well-wishers of the science. But—there are always alas, 'buts'—many-voiced as their Indian reputation is, we fear it has not penetrated (as it deserves to do) to the fog dulled ears of the English and American publics. Even to the charming of such sirens we doubt if the best men from the four quarters of the globe will rush to pour post-graduate education into the yearning bosoms of our Indian-passed 'B. As.'

True, we have, or probably will soon have, the money to buy up all the scientists or specialists in the world, or as many of them as we want. But we venture to doubt this capacity in mere money to create 'a courser' in *savants* for our benefit. The German '*privat docent*' (and *a fortiori* the German professor), the French and Italian scientist, the trained English and American educationalist, want something more than money, something which money cannot always give. Fame, suitable environment, books, and the most recent instruments for prosecuting their researches, touch with the world of learning and science bulk with most of them more largely than paise and pensions. Can we give them all these things? America and Japan will be quoted to show that the difficulty is not insoluble, but the parallels are by no means exact. Money can find buildings and books, instruments and laboratories, but it cannot greatly modify the environment or maintain a close communion with Western spheres of progress, still less can it ensure the reward of fame. To speak very plainly, in our opinion, European and American teachers of prime distinction may be perhaps attracted temporarily and in their youth to our post-graduate University, but will not be induced to settle permanently or to identify themselves and their learning with the institution as they would do with the less-gilded universities of their own countries. We must be content to accept something less than the very best.

And even so, are we sure that we shall be able to provide the teachers whom we may obtain with material worthy of their best energies? Here America affords no parallel, and Japan a very insufficient one. At present the stuff turned out by our so-called universities is for the most part worthy only to obtain the summit of its ambition and to enter a mamlatdar's kutcherry or the employment of an up-country vakil. It is not only that their talents are inadequate, but that their ideals are debased. At the highest their ambition measures itself in rupees, and it is not of such that genuine scholars, teachers, and *savants* are made. And this consideration suggests a query as to the real object of the proposal. Its professed object is plain enough—viz., to found an institution like, *e.g.*, the John Hopkins' University in America, where well, educated persons, who desire special instruction of a more advanced kind, can obtain it. But why? What are these super-excellently educated persons to do with their education here in India? We ask in no carping spirit, but from a genuine desire for information. Specialistic training in hygiene, and perhaps in education, may be of some general utility. But, after all, no very great amount of sanitary science is required to teach people to keep themselves and their houses clean—instruction of this kind is already pretty general, and if the religious opinions and traditional rites and customs of the people are not to be wholly uprooted, more effectiveness cannot be given to any instruction, however scientific. The same kind of argument applies with still greater force to the teaching of agriculture and handicrafts—*and not only in India, but all over the world.* Nowhere is the brain or will of the ordinary cultivator or workman directly open to the highest scientific teaching. A certain amount, more or less, according to country, race, and habits, he can be got to understand; and to hammer this comprehension into him is required not the picked wisdom of an auriferous university, but a simple manager of men who realizes local conditions and local needs and can apply a limited theoretic knowledge to them. If research, pure and simple, is intended as the object of the new University, there will be some difficulty, as we have hinted, in finding workers enough among the natives of India to justify the expense and labour incurred. The Hindu scholar of the old type will have none of these toys, and he of the new type will prefer to embark his intellectual capital in something which will give surer and speedier returns than research, scientific or literary, can promise. Again, to speak plainly, many will doubt if the times are yet ripe for the foundation in Western India of an institution of the ambitious type apparently desired by some of Mr. Tata's supporters. Some even may suspect—and once more at the risk of giving offence we will say openly what we think—that among the sentiments stimulating and guiding the movement a somewhat cheap form of vanity has—unobserved perhaps by the proposers themselves—crept in and established itself.

This is disguised to a certain extent by the claim that such an institution would serve very definite purposes, and would in especial tend to relieve us of the reproaches of superficiality and impracticableness levelled against our present system. But would it? The man of scientific research is not necessarily a practical man in the accepted sense of the term, still more seldom is the pure scholar such. And any stage of learning not up to the highest standard of excellence is liable to the charge of superficiality. Lastly, every student cannot become a Huxley or a Mommsen and the indefinite multiplication of brain-workers of only average abilities and no visible means of subsistence is a thing not to be encouraged. The fact is that the enthusiast who drew up the prospectus was not very clear in his own mind as to what he wanted, and has mixed up ideals which are to a certain extent inconsistent with one another. Mr. Tata's idea of a *genuine teaching University* for India is good enough, but it has been overlaid with non-essential characteristics. There is no reason in the nature of things why such a foundation should devote itself to the manufacture of pure savants as its end and aim, nor is it, as we have already said, apparent how by such a course we shall *ipso facto* roll away from us the stumbling block of impracticability.

But we came to bless and not to ban. If we have paraded the objections to which the present form of the scheme is open, in all their nakedness, it is because we wished to forestall the attacks of hostile critics and to emphasize certain points which seem to have been forgotten in the general chorus of laudation. Hence, realizing the difficulties as we do, we would venture to offer the following suggestions to the promoters of this movement.

In the first place, why flaunt their inefficiency in the face of the existing institutions. Verbally rivalry is disclaimed, but in sheer fact rivalry and friction will occur if the new University stands aloof in scornful or critical isolation from its older sisters. Why indeed call it a *University* at all? Why not be content with the humbler name of *College*, which need not preclude affiliation but not subordination to one or more of the present Universities. Again, much may be done by kindness, and if you treat your erring 'examining University' kindly, who knows but that in time she may realize the wickedness of her ways, and, peradventure, repent and be saved. Our enthusiasts must look on themselves as the missionaries of true education, not as its crusaders, and seek the conversion rather than the extirpation of the benighted souls among whom they sojourn.

In the second place, fling away ambition and 'flee to enquire' what store of glory fortune may hold in reserve for the scientist of Indian name, European learning, and prehistoric habits. Begin very quietly and with a full comprehension of the conditions under which the work is to be done and of the material which is to be worked upon. Carefully select your pupils—by any method you please, so long as the results are satisfactory—and limit their number sternly. The maximum will depend upon a good many things, but will be largely determined by the law of supply and demand. Of highly trained scientists—as the Greeks said of cabbage—one can have enough, and a superfluity means death—death to the superfluous ones and to other people also.

Thirdly, choose your teachers with discretion, the most learned men are not always the best expounders. Pay them well, but not too well, lest they, their wealth, confound their wit. Take first such subjects as will best repay study here in India and bid your professors deal with them in a practical way and with a view to the application of their learning to Indian problems. Specialization and research of this kind will produce results of permanent utility, especially in the fields of medicine and education. The College or University should turn out not well-qualified doctors, nor accurate surveyors, nor clever farmers, but supreme directors and instructors of men who, having gained the highest theoretic knowledge themselves, can also apply it to the instruction of the ordinary teacher and practitioner, through whom improvement may trickle to the masses. The men India wants must not be mere men of books and test-tubes.

Lastly, as will have been gathered from the foregoing, the chief characteristic of the new institution must be a limited specialization, limited, that is, in the amount of subjects on which its professors specialize. And what of the others? They must be left severely alone, and we sincerely deprecate any such attempt (as is made at the John Hopkins) to include a more or less advanced course of general instruction in arts. Here it is that the teaching force of the new body must be exercised indirectly, *i. e.*, in shaming the existing Universities into providing such curricula as will form an efficient basis for the after specialization and for the complete development of all the faculties.

Mr. Tata, the well-known merchant prince of Bombay, has, under certain conditions, offered to put at the disposal of a properly constituted body property calculated to produce an annual income of Rs. 25,000 for the purpose of creating and maintaining an institution for post-graduate studies and for scientific research. This handsome offer has been made under no hasty impulse; for, during the past ten years at least, Mr. Tata has been feeling the need of making an advance in our University studies, and, moved by the speech of our late Governor, Lord Reay, as Chancellor of the University, and by the discussions which had led to the foundation of a teaching University in London, he has sought and obtained advice from the highest educational authorities of England and the continent [illegible]onal committee has already been formed to ca[illegible] matter forward, and it is devoutly to be ho[illegible] others with means will strongly support the [illegible] and beneficent work so excellently set a going.

The prevailing idea seems to favour either the creation of a new University or a development of one of the existing Universities on the model of the post-graduate Universities of the United States, such as the John Hopkins of Baltimore or Clarke, as the most expedient means for the creation and cultivation of the spirit of research in India; for it has been rightly considered that if men of talent engaged in the elucidation of scientific problems arising in industrial pursuits were sent to Europe, they would, on their return to India, be without adequate facilities to continue their investigations.

So far as we have been able to learn, the draft scheme of Mr. Tata's endowment, which has been accepted by His Excellency the Governor of Bombay, is as follows:—

It is proposed to found an institution which shall be, or correspond to a Teaching University for India, its primary aim being to teach and not to examine. The Diplomas therefore will be conferred only on those who have a certain course of Higher Education. (2) This work of higher instruction will be conducted on the principles now followed in Europe, *e. g.*, in the German Seminaria, the French Conferences, and the English-American Research Classes. These courses will be the beginning of a pure specialist training. (3) To prevent interference with the existing agencies, the new institution will take up teaching where the colleges of the existing universities leave off; the the new courses will be post-graduate; new specialist courses which are post-graduate will naturally be professional and technical rather than simply liberal; a school of sanitary science and practice for qualified medical men, a school of pedagogy for those intending to be higher secondary teachers (inspectors of schools, head-masters, etc.), and a school for higher technical studies, are some of the obvious directions of development. (4) It is proposed to take these up at once. The order in which they may be proceeded with will be best arranged by a committee. It is not intended to cut off post-graduate studentsfrom education in Europe; it is contemplated to select the best for further training in Europe or America with a view to their future return to this country. (5) It will be necessary to make ample provision for scholarships and fellowship both for the students in the institution and for those who proceed from it to Europe or [illegible]. (6) The development of a scheme so complex must [illegible] a vast capital and annual expenditure. The [illegible] libraries, laboratories and museums—the invitation [illegible] specialists to teach and prosecute research—all this must require large sums of money. To secure the necessary financial support by making a general appeal for funds, to obtain a short legislative enactment enabling the institution to hold property, certain gentlemen have been invited to form themselves into a Provisional Committee to carry out the plan agreed upon.

We commend to the notice of our readers (1) our townsman, Dr. Chowksy's able and pertinent letter to the *Times of India*, with the single remark that it is amusing how easily the estimable doctor finds that the best practical beginning of the scheme should be in the direction of disease, drugs, etc. This is a matter about which even others than doctors may differ; and (2) the article on post-graduate instruction in America in the same paper of September 30th, from which an excellent idea may be found of the lines on which Mr. Tata and his advisers are working.

German Technical Education.

FROM the report of Consul Wilfred Powell on the Association for the promotion of Foreign Commercial Relations with Stettin, the following extracts are taken:—Much has been said and written in Great Britain, on the superiority of the German Technical Education to that of Great Britain, and to this has been, in some measure, attributed the success which has attended German commercial enterprize within the last 25 years. That the technical education is better than that of England is denied by many Germans who are competent to give an opinion, having studied the subjects in both lands, but what they do admit is that the application of this education in Germany is carried out to a more practical and useful conclusion than in England. Thus in Great Britain, there are numerous public and private schools having a modern side to their curriculum, which is an excellent adaptation of what is called in Germany the "Real Gymnasium;" but in how many English schools is this modern side looked down upon by the head or high master, and consequently by the boys themselves, and the classic side held up as the education which befits a gentleman? Again, how many British boys on leaving school or the universities to face life in a business which is world-wide, can speak with fluency, or even tolerably, any language other than their own?

Will the day ever come when educational establishments in Great Britain will be able to exchange pupils with equally respectable establishments on the continent? For it is admitted on all hands that a language can be learned to perfection only in its own country; and in time of youth as much can be learned in one year, as can be attained in three at a maturer age.

On the conclusion of the Franco-German war a few leading merchants in Stettin, assisted by men of means, met to consider what steps could be taken to extend and improve the trade of Stettin with distant countries, for Stettin commerce up to that time had been for the most part confined to countries touched by the Baltic.

The first meeting of the Association was held in December, 1871, and at that meeting was established the "Verein fur Förderung überseeischer Handels beziehungen." It was decided that the best and most efficacious means of increasing Stettin's trade would be:—

1. The better education of clerks and young men who had taken up commercial business as a profession. For this

purpose evening classes were to be instituted, and those who attended were to be instructed in all branches of commercial education: geography, and science, also foreign languages, especially English, Spanish and French. For private study a library was to be provided.

2. The sending to the British Colonies, America, and other parts of the world, well-qualified clerks to improve their knowledge of business, and to work at their place of destination in the interests of Stettin trade. To carry this into effect, each young man so sent should receive a stipend not to exceed the amount of 1,500 marks or about £75 to cover the expenses of travelling to, and living for three months in, the country to which he desires to go, and has proved his fitness to proceed. In most cases a letter is addressed to the Imperial Consul at the place or country to which the young man has departed, he also carrying a letter of introduction to the Consul, which he shall present with as little delay as possible on his arrival, thus being placed under the supervision of a recognized authority, who can advise and assist him in his career.

The Association began work in 1872 with great energy, competent masters were obtained for the English, Spanish, and French languages, as well as teachers in commercial subjects, and very considerable progress was made during the first year. Two gentlemen, both of whom were experts in foreign commercial knowledge, and one of whom was himself a great traveller, placed their experience and knowledge at the disposal of the candidates, and the Association grew to be a most useful institution.

Meetings are held in the evenings, several times a month, during the winter season, and the candidates are called upon to give lectures and reports upon every variety of commercial subject. I give a short list of some few of the subjects dealt with. German and American life, Morocco, sugar manufacture in Germany, insurance companies, facilitation of the corn trade, the Mediterranean, Hong-Kong, the use of shorthand writing, coal, woolgrowing, Sumatra, Transvaal, the Straits Settlements, tobacco, England's advance in India, colonisation in subtropical countries, coffee plantation at Prince's Island and many others on equally various and useful subjects.

One of the principal duties of young men is to forward regular reports, if possible, once a month, or at the least once every three months, in which they are desired to give a full account of what they have seen and done, and to give particulars of the commercial prospects and possible relations between their place of abode and Stettin. The most important point to which their attention is called, in making these reports, is to give details and particulars of the legislation, production, and consumption, as to prices of merchandise imported and exported, and also to give their views as to the means by which Stettin may be brought into commerical connection with the place on which they are reporting, or if there is already business connection, how this may be extended and improved.

These reports which must be addressed to the "Vorstand" (Board of Directors) are read at the meetings, and are subjected to criticism and discussion. If they are considered of value they are printed with the annual report which is distributed to all subscribers. Some of these reports are excellent, showing that the writers noted with care and judgment the prospects of trade and making frequent useful suggestions for the improvement of Stettin's trade relations, by which business men could not fail to profit. One clever report was on the trade with Johannesburg, dated 1895-96, advising Stettin business men, amongst other business matters, to import cyantalium for clarifying gold, cloth and ready-made clothing, stating that the latter trade has hitherto been entirely in the hands of English firms and showing how Stettin should be able to compete successfully with British exporters in cloth, &c., but adds, without giving a reason, that "an attempt to introduce German spirits would not be successful." The same report also recommends German farm labourers and artisans to come over, as they are sure to find ample employment, but cautions clerks against immigration, as large numbers are there at the present time without occupation, and glad of employment as waiters.

Besides instruction in foreign languages (English, French, Spanish, and in some cases Portuguese) and being assisted to improvement in commercial knowledge, the candidates hear lectures and readings on all articles capable of export, of which they are expected to take notes. There is also an excellent library placed entirely at their disposal. There can be no doubt that the large majority of those who have become members of this institution has turned out very well, and have not failed to remember the Association to which they owe their early commercial impulse. Several have shown this by substantial recognition, others by grateful letters received, and there can be no question that Stettin trade has been largely assisted by this system of emigration. The following are some of the regulations in respect to the grants of money for travelling:—

Every member of the Association is entitled to apply for a travelling grant. The applicant must prove himself to be possessed of sufficient knowledge of the French and English languages as well as being well grounded in the business language of the country to which he is going (chiefly Spanish and Portuguese). His application, in which he states the amount required, must be supported by a written or verbal recommendation from the head of the firm in which he has hitherto been working together with the report of the examinations which he has passed.

The grant to be advanced shall, as a rule, be only sufficient to cover travelling expenses, and such as are necessary for a stay of three months in the place to which the applicant is proceeding. The total, however, must not exceed 1,500 marks (about £ 75) unless a larger grant shall be allowed at a general meeting, on the proposal of the Board of Direction. Should the member so travelling obtain a situation before the expiration of three months, and have a portion of the grant unexpended, he will be expected to refund the amount left. The Board is not in any way bound to grant any member a second sum.

Those members, who receive a grant give a solemn promise, accompanied by grasping the hand of the president, that they will conduct themselves as worthy of the confidence and trust placed in them by the Association, and that they will make every effort to obtain as much information and knowledge as possible, to be employed and utilised to the benefit of the Stettin trade. They likewise promise to send once a month, if possible, but certainly once in three months, a report to the Board of Direction on their experiences and impressions of the country to which they have proceeded, but especially to report upon the commercial aspect of affairs, principally under the headings of consumption, imports, exports, climate, legislation, duties, prices, and to suggest any means by which their place of resort may be brought into business relations with Stettin, or, if already in connection with Stettin, how such trade as exists may be improved and extended. These reports must be read at the general meetings of the Association and shall be subjected to discussion. They may also be printed in the proceedings of the Association if considered of sufficient value.

It will be held as a matter of honour that those men who, having received a grant, have found a good situation abroad, and are in a position to repay the grant, should do so. These repayments shall be added to the capital of the Association from the interest of which further grant can be made to others. There is no obligation under law to repay the grants. Something of a similar nature might prove of value in the education of British clerks and young men who are willing to become commercial travellers; indeed, it should prove useful to any young man who, without the necessary means of his own, could by application obtain assistance from such an Association in Great Britain, and there is also room for some extension and improvement on the Stettin method; this might be brought about by a company of merchants in Great Britain.

The University and the Recognition of Colleges.

A MEETING of the Senate was held on Monday, 19th September, in the Sir Cowasjee Jehangier Hall of the University, the Hon. Mr. Justice Candy, the Vice-Chancellor, presiding. There was a large attendance of the Fellows of the University.

After accepting a prize in the name of the late Shet Ebrahim Nurudin, J. P., to be awarded annually to the Dawudi Bohra candidate who passes the Matriculation Examination with the highest number of marks and passing a general resolution that "all book-prizes not claimed within twelve months from the date of publication or the award shall lapse to the University" the Senate proceeded to consider the

RECOGNITION REGULATIONS.

The Hon. Mr. Justice M. G. Ranade proposed that as recommended by the Syndicate, that the present Regulations for the Recognition of Institutions (page 243 of the Calendar) be omitted, and the following substituted in their place:—"Any College or other Institution desirous of being affiliated in any Faculty must forward to the Registrar with its application the following documents signed in each case by the responsible authority and countersigned by two members of the Senate:—(*a*) A statement containing full information regarding the constitution of the Managing Body and the names of its members; (*b*) a statement regarding the standard up to which it is desired that the College or Institution should be affiliated; (*c*) a statement showing the provision made for the instruction of the students up to the same standard; (*d*) a statement showing the scale of fees to be charged; (*e*) a statement showing the building accommodation provided or proposed to be provided, and sanitary arrangements; (*f*) a statement sufficient to enable the Syndicate to judge of the financial stability of the College or Institution. 2. By the term "responsible authority" is to be understood the Managing Board in the case of Colleges or Institutions under such a Board and the Director of Public Instruction in the case of Government Colleges or Institutions. 3. Such application, if found to be in order, shall be considered by the Syndicate, and, on the recommendation of the Syndicate, by the Senate who may resolve that such Institution shall, subject to authorization by the Governor in Council under Section XII. of the Act of Incorporation, be affiliated. Such affiliation shall take effect when the authorization by the Governor in Council under the section referred to shall have been notified, and from such date as in such notification shall be directed. 4. The Senate may, on the recommendation of the Syndicate, at any time withdraw the privilege of affiliation from any College or Institution. Such withdrawal, if sanctioned by the Governor in Council, shall take effect when the withdrawal of the authorization under Section XII. of the Act of Incorporation by the Governor in Council shall be notified."

Mr. Ranade said: The subject of revising the rules for the recognition of Institutions affiliated to the University came up before the Syndicate in the first half of the last year, when it was proposed to withdraw the recognition given to an Institution on the ground that it had not been started long after the recognition by the Senate had been given. It was then found that there was no power in the Syndicate, or for the matter of that in the Senate for withdrawing the recognition once given on such grounds. It was accordingly settled that the rules should be amended so as to remove the last two lines of regulation 2, which specified the circumstances under which recognition might be withdrawn: these circumstances being first a change in the course of instructions or inability to educate up to the University Standard. This took place some time before Government took any action in the matter of Section XII. of the Act. The amendment was not brought before the Senate, because in

December, 1897, Government raised the larger question that the rules, as they stood, were not strictly legal as under Section 12 of the Incorporation Act, the power of authorising Institutions to grant certificates of attendance to candidates for degrees rested solely with Government, and that was the power which did not belong to the Senate, and could not be delegated to that body. The function of the Senate was to lay down the course of instruction, but that instruction must be pursued in an Institution authorised by the Government of Bombay, and this was a power which Government could not delegate to the Senate. The Syndicate was accordingly asked to advise Government as to the Institutions which should be so authorised and to revise the rules on the lines suggested by adding in the first rule the words "duly authorised by Government in that behalf" after the word "Institutions." The power of withdrawal was also similarly claimed by Government as belonging to them. This letter from Government made it necessary to re-consider the rules in a more radical way than [illegible] first intended. The words of the Act were clear, and y[illegible] forty years both Government and the Uni[illegible]sity h[illegible] the [illegible] understanding that Government had delega[illegible] power to the Senate. In considera[illegible] this fact Government was prepared to ratify the action of the [illegible]iversity by authorising the Institution already recognised by the [illegible]ersity, but for the future a revision of the rules became necessary. A[illegible]ordingly a sub-committee was appointed in December last to consi[illegible] and report on the question of the necessary amendment of the rules. [illegible]hat Committee inquired into the whole question and obtained inform[illegible] about the practice of other Universities in such matters, and its [illegible] was submitted and considered by the Syndicate in January, 1898. The inquiries made about the practice of other Indian Universities [illegible]icited the fact that in Calcutta the power of affiliation rests under the sa[illegible]tion of the Governor-General of India in Council with the Syndicate, [illegible]d that the power of withdrawal of such affiliation rests with the Senate, which body, however, has to act on the recommendation of the Syndicate and with the sanction of the Governor-General of India in Council. The Calcutta rules also require over and above the information we require here about the staff of instructors, course of studies, and declaration about educating up to the standard, further information regarding the constitution, the scale of fees, and assurance that the Institution shall be maintained on its proposed footing for five years, and it is also provided the Syndicate shall inquire whether the establishment of the new Institution was likely to be detrimental to the cause of sound education and discipline. Thus it will be seen that the Calcutta rules go much further than the rules we now propose. The affiliation there rests with the Syndicate and Government exclusively, and the Senate has no voice in it though it has a voice in the matter of withdrawal. The Madras rules state that the power of affiliation rests with the Syndicate as in Calcutta, subject to the sanction of the Governor-in-Council in Madras, and the power of withdrawal also rests with the Syndicate acting under the same sanction. The statements required to be furnished to the Syndicate include particulars about the building accommodation, furniture and appliances and the financial resources and the teaching staff of the Institutions. In the Allahabad and the Punjab Universities the power of affiliating Institutions rests with the Syndicate, subject to the sanction of the Chancellor, and the power of the withdrawal rests with the Syndicate subject to the sanction of the local Government. It will be thus seen that in all the Indian Universities the Senate as such has no power in the matter of affiliation of the new Institutions, and in the case of all but the Calcutta University it has no power in the matter of withdrawal also. In the Calcutta University the Senate has a voice in the matter of withdrawal, but none in the matter of affiliation. Hitherto in our University both these powers rested entirely with the Senate, the Government having delegated by implication all its powers to that body by confirming all its regulations on the subject. In the face, however, of the claim now made by the Government that they could not delegate this power to the Senate, it became necessary to adopt a middle course, and the rules now proposed give effect to this view. The recognition as well as withdrawal under these rules will be made by the Senate on the recommendation of the Syndicate, and subject to the authorisation by Government.

The authorisation under this rule is not a condition precedent to the affiliation but comes after it by way of sanction, and is in keeping with the rules which require such sanction by Government to all changes in the regulations made by the Senate. These draft rules are now submitted to the Senate for their approval. In the first rule the only change made is the substitution of the word "affiliation" for "recognition." The word "affiliation" has obvious advantages, as it suggests the relation of mother to child between the University and the Institution recognised; and now that recognition requires the sanction of Government, the word [illegible] deemed to represent the proper function of the University. [illegible] change made in this rule is that over and above the statements required, [illegible] information is asked about the scale of fees, the building accommodation, [illegible] financial resources of the institution. These additions are taken from the Calcutta rules and relate to points about which information is necessary to guide the Senate in its action. Draft Rule 2 is the same as the first portion of the existing Rule 2. The second portion of the existing Rule 2 relates to withdrawal. It has been deemed advisable to break up this portion into two parts, and they now constitute Rules 3 and 4 of the draft. Rule 3 relates to the affiliation and Rule 4 to the withdrawal. In each case the Syndicate initiates, and the Senate acts on such initiation subject to the further sanction of the Government under Section 12. As stated above, these rules represent a compromise which, while it restricts the absolute freedom hitherto enjoyed by the Senate, still leaves it larger powers than are possessed by similar bodies in other Universities. I think it wise in the interests of the Senate itself to accept this compromise. From the amendments which have been notified I find that Rules 1 and 2 are not objected to by anybody. Two of the amendments, however, suggest that the words in Rules 3 and 4 referring to the authorisation by Government, should be dropped. Of course, if we drop these words there will be no possibility of Government in its present attitude on the subject, consenting to the omission, and even if they are dropped in these rules, Government will, all the same, insist upon its sanction being obtained. Rather than risk this constant friction, it would be better to accept the fact, and retain the powers in part which the Senate now enjoys. There is a third amendment which is on different lines. It raises the question that Section 12 of the Act is restricted to the affiliation of Institutions which teach up to the full course. The existing Rule 4 expressly recognised the competency of the Senate to give recognition for the purpose of particular examinations. From certain papers placed in my hands I find that counsel's opinion has been obtained; and the counsel so consulted—Mr. Macpherson—has given it as his opinion that Section 12 must be restricted to Institutions teaching up to the final degree course. This is a legal question about the construction of the statute, and it is for the Senate to determine what action to take in this matter. In the Calcutta Calendar I find that certain Institutions are affiliated only up to the B.A. Standard and certain up to the F. E. A. Standard. In the Allahabad University they have institutions affiliated up to the M. A. Standard, B. A. Standard, and up to the Intermediate Standard, and the same is the case with the Faculty of Law also. In the Madras University they have institutions recognised in the Faculty of Arts up to first examination and B. A. Examination, and there is similar gradation in the Faculty of Medicine for different examinations. But the regulations show that the certificates to be produced by applicants must be from the heads of Colleges authorised in that behalf by the Governor-in-Council. In all the Universities both partial and full recognitions are made under the same rules and by the same authorities, and this circumstance should guide us in our action. I have thus attempted to place before you all points which need particular consideration, and I now beg leave to move the proposition entrusted to me on this subject.

The Rev. Dr. Mackichan seconded the proposition, reserving his remarks.

THE AMENDMENTS.

The Vice-Chancellor said that a responsibility was cast upon him of deciding how the propositions should be put to the meeting, as there were several amendments, and as no objection had been taken to Regulations 1 and 2 of the proposed rules, he proposed to put them first. Then assuming that these two rules were passed, as he hoped they would be, he would put the third regulation and the first and second amendments to that proposed by Mr. Setalvad. Then the next in order would be that proposed by Mr. Cama, and thirdly that proposed by Mr. Gokhale.

The Vice-Chancellor put Regulations 1 and 2 to the vote of the Senate, and they were carried.

The Vice-Chancellor said that they came now to Regulation 3, which was also duly proposed and seconded, and he called upon Mr. Setalvad to move his first two amendments.

Mr. Setalvad moved his first two amendments which ran as follows :—' That (1) in Regulation 3, all the words beginning with "subject to" in line 3 up to the word "incorporation" in line 4 be *omitted*, and all words beginning with "take" in line 5 up to the end be *omitted*, and the following be *substituted* in their place, *viz*., "be notified by the Registrar in the *Bombay Government Gazette*, and shall take effect from the date of such notification. Nothing herein contained shall affect the provisions of Section 12 of the Act of Incorporation." (2) In Regulation 4, all words beginning with "if" in line 3 up to the end be *omitted*, and the following be *substituted* in their place, *viz*., "shall be notified by the Registrar in the *Bombay Government Gazette* and shall take effect from the date of such notification."

In support of his amendment, Mr. Setalvad said :—We have been accustomed of late to hear that it is against the best interests of the University to bring forward proposals for any changes or reforms, and we have been gravely told, times without number, that what the University needs at present is peace and repose, and my friend, Mr. Ranade, has been repeatedly charged as the great offender in disturbing the peace that is so much needed. When I, therefore, Sir, read the Agenda paper for to-day's meeting, I rubbed my eyes, for I could not persuade myself to believe that those very gentlemen who had solemnly preached the doctrine of peace up to now had suddenly abandoned their faith, and were not only proposing far-reaching changes that had not been, so far as I am aware, called for by any one, but had actually selected Mr. Ranade—the great sinner that they have always considered him to be in this respect—as their spokesman. Mr. Vice-Chancellor, I assure you I have not yet got over the feeling of wondering surprise that this sudden metamorphosis has brought upon me. But, Sir, while I congratulate these gentlemen on their coming round to our faith, the faith of progress and reform, let me warn them that owing to the hurry with which they have embraced the new faith they have not been able to assimilate its true principles. We want real progress and reform that the changing times may require for the greater usefulness and dignity of this University. Now, gentlemen, our recognition bye-laws have been in existence all these years and have so far worked well. What, then, is the occasion, and who is it that has called for the proposed changes? We are told that there are certain powers vested in Government under

Section 12 about authorising affiliated institutions, but which power they have omitted to exercise up to now, and that under the section we can admit to degrees only candidates coming from such institution, and that we must take note of these powers in our bye-laws. Now, gentlemen, if Government have not chosen to exercise their functions under Section 12, surely it is not our present bye-laws that have prevented them from doing so? And, gentlemen, when they have chosen to exercise their power as they did in June last, when they published in the *Government Gazette* a list of affiliated intitutions that they authorised under Section 12, surely our bye-laws did not come in the way of their doing so? So that our present bye-laws and Section 12 have worked harmoniously together up to now. Why, then, gentlemen, and for what purpose, are these bye-laws to be replaced by new ones. Coming to the new regulations they introduce two important changes; they make the affiliation of all institutions subject to authorisation by Government Section 12 of the Incorporation Act. Now, gentlemen, there is a great difference of opinion among lawyers as to the interpretation of this section. The opinion of a very eminent member of the Bombay Bar, Mr. Macpherson, has been placed in your hands. He thinks that the authorisation under Section 12 is necessary only for the final degree classes, that is, for instance, in Arts no authorisation is needed for the Previous or Intermediate Examinations. Now, gentlemen, I do not deny that there may be others who construe the section differently. But gentlemen, are the Senate in a position to-day to decide by a vote as to the real interpretation of the section as we are asked to do in the new regulations. Will it not be more wise and prudent for the Senate not to connect itself to any one view, but have the section to its operation? Then, again, gentlemen, by making the affiliation of a college itself subject to your authorization, the Senate are practically abrogating the power that they have under Section 12 of admitting to degrees by a special vote candidates coming up from institutions not authorised by Government. I quite admit that the occasions for the exercise of that power would, indeed, be rare, but I say it is not only unwise but illegal to deprive ourselves of that power. Coming to Clause 4 of the Regulations, I am really surprised at what I must call gentlemen, the audacity of the proposal. We are told that if we want to withdraw affiliation from an institution we cannot trust our judgment in the matter, but lest we commit any error we must make such withdrawal subject to the sanction of Government. A little thought will show you, gentlemen, that this is an entirely one sided arrangement, depriving the Senate of all independent action. Gentlemen, if the Senate in the first instance refuses to affiliate an institution, such refusal is final, and Government cannot interfere with it. So that, even if Government have authorised an institution, and it then comes to us for recognition, we will be at liberty to refuse our recognition. So also even if we give our affiliation you will be at liberty to refuse its authorisation. But when we come to a withdrawal of affiliation once given we are precluded from withdrawing it except with the sanction of Government. But, gentlemen, although our affiliation may continue, there is nothing to prevent Government from withdrawing their authorisation under Section 12. Why, then, should the Senate be not equally free to withdraw its affiliation independently of Government? For otherwise, however badly an institution may be conducted, it can always defy the Senate if it is in the good graces of Government. I think, gentlemen, both the authorities, Government and the Senate, should be entirely free to reconsider their position independently of each other. I beg, therefore, to move the amendment that stands in my name.

Mr. Jamietram Nanabhoy seconded the amendment.

The Hon. Mr. Mehta said that he was one of the consenting parties to the rules placed before the Senate, but he thought two questions had arisen which required some consideration. There was some force in Mr. Setalvad's remark that if they did not include in Regulation 3 the words 'subject to the authorisation of Government," that that would not take away the power reserved to Government by Section 12, and the question was raised whether the University should incorporate that section in their bye-laws. All that it would make clear was that the University must be a consenting party to the affiliation of an institution He would not have such serious objections to this proposal, but it seemed to him that Section 4 did require some modification. As it stood the withdrawal of affiliation would not be effective in itself unless it was backed up by the consent of the Government. It seemed to him that if the University as well as the Government were two necessarily concurrent parties to the affiliation, the withdrawal of either party should nullify it. As the proposal stood, the Government could do it single-handed, but the University could not. Here it seemed to him that the regulations did take away a power that rested with the University, and the points were of sufficient weight for the Senate to ask the Syndicate to review their decision in this matter, and he moved an amendment to that effect.

The Hon. Mr. Goculdas Parekh seconded the amendment.

The Rev. Dr. Mackichan said he would have no difficulty in accepting the amendments if he saw that much good could come from reconsidering this question. They were told that there were two consenting parties to the arrangement with regard to affiliation and authorisation, the University and the Government, but it must be remembered that these two consents did not stand upon the same platform and were not co-ordinate. So far as the Act of Incorporation was concerned, it might be possible for the Government to entirely set aside the authority of the University, and to say it lay with Government entirely and exclusively to authorise Colleges, so that the consent of the University and the consent of the Government were not co-ordinate. At the same time, the Government had never shown any desire to exalt its authority over that of the University, and the Government did not desire to press the Act of Incorparation to diminish the privileges or powers of the University. Government, they were told, considered it their duty to exercise their statutory powers, and what they were concerned with that evening was really an arrangement under which that could be done with the minimum of friction between the two parties. They had before them a series of rules that formed an admirable solution of the difficulties that had arisen—a solution consistent both with the duty of Government and the dignity of the Universityg It was quite true, as Mr. Setalvad had said, that there was nothin, to prevent the Government from exercising their powers under the section but it was not courteous to say that whilst they knew that the Government must authorise an institution yet in their rules they were not prepared to take cognisance of this relation between the Government and the University. There was also the general rule that regulations or bye-laws passed by the Senate required the sanction of the Government, but it had never been the practice to consider the act of the Senate in recognising a college as coming under the same category as regulations or bye-laws. If it were, the difficulty would at once disappear. Another point raised was that whilst there were two consenting parties it was sufficient that the withdrawal of the recognition should be under the authority of one of the authorities alone, but he could not see the logical position involved in that statement. Touching upon the opinion of counsel circulated to members, Dr. Mackichan remarked that it was only because the case had been presented in a plausible way that that opinion had been given. It would be unwise to delay this question by referring it back for another discussion on the same lines.

The Vice-Chancellor here vacated the chair as he wished to make a few remarks on the amendment before the Senate, Principal Hathornthwaite, senior member of the Senate, occupying it in the meanwhile.

The Vice-Chancellor said that he wished to make a few remarks, because he had spent several hours in tracing the history of the subject in the University records. He might at first mention that there was not the slightest mention of recognition or affiliation in the Act of Incorporation the only words used in the Act of Incorporation being "authorization by Government." The next remark he wished to make was that the matter of recognition or affiliation was, in its conception evidently meant to be a recommendation by the Syndicate to Government for the purpose of authorization. In the Calcutta University Calendar they found that under the heading of "affiliation and recognition" to the word "affiliation" there was a footnote (see Section 12); and if they looked at the history of the rules for affiliation and recognition in the Calcutta University, they would find that it was simply so with a view to the authorization by Government. The Senate might send the proposal back to the Syndicate with directions for them to reconsider the matter, but he could assure them that the matter had been threshed out thoroughly in respect of the several different points which arose in connection with this subject. He might point out that if the Senate refused to take the matter up in the way it had been presented to them, they would put the University in opposition to Government. It was quite possible, he did not say it was probable, that Government might say that the present rules for recognition were passed under a complete misunderstanding, that they were in fraud of their power, and that they declined to recognise them any more, and would only recognise that which the Act recognised, namely, authorization by Government. He found by referring to old records, that the original resolution which obtained the sanction of Government, and by which the power of recognition was vested in the Bombay University in the Senate—and it was confirmed by Government on the distinct understanding that it was substantialy the same—an analogous resolution of the Calcutta University. The power of affiliation rested with the Senate for the last forty years, and was it not better that it should continue to rest with the Senate as in Madras and Calcutta, under the sanction of the Governor in Council? He trusted that the Senate would not allow the matter to be protracted as protracted it must be if it went back to the Syndicate, but that they would believe the gentlemen whom they had chosen as members of the Syndicate to have carefully reconsidered the resolution to be put before the Senate, and that they would trust and believe them that they had acted for the best in putting the resolutions in the shape they were now before the Senate.

The Vice-Chancellor then resumed the chair.

The Hon. Mr. Mehta's amendment was then put to the vote and carried by 35 against 25 votes.

The Vice-Chancellor said that the amendment having been carried, the other amendements fell to the ground.

HISTORY AND PHILOSOPHY COURSE.

The Senate then proceeded to consider the separate courses drawn up in History and Philosophy for the M. A. examination in pursuance of a resolution of the Senate to separate the two subjects and to form two independent M. A. schools.

The Hon Mr. Justice Ranade and Professor Muller, who proposed and seconded, respectively, the two courses, made speeches in support of the proposition.

On the motion of Mr. Tripathy the debate on the question was adjourned.

On Tuesday afternoon, 20th September, after a lengthy discussion the matter was referred back to the Syndicate for reconsideration, on the motion of Mr. Tripathy.

Obituary.

The late Rev. Richard Stothert, M.A., Edin.

In the removal by death of the Rev. R. Stothert, who passed away at his residence, Victoria Road, Byculla, Bombay has lost one of its oldest and most highly-esteemed European citizens. Mr. Stothert was the last survivor of the family of Mr. Wm. Stothert of Cargen, Dumfrieshire, the head of a county family in Scotland, and an officer of the Queen's Guards. He was educated at the Edinburgh Academy, and the Edinburgh and Glasgow Universities, and was strongly influenced by the lectures in Philosophy of Sir William Hamilton. Mr. Stothert's father and several of his relatives had taken an active part in that event in Scottish Church History, known as the Disruption. The family worshipped under the ministry of the evangelical Rev. Dr. Mordie Huart of Free St. Luke's, Edinburgh. After the completion of his University studies, Mr. Stothert acted for some time as Chaplain to one of the Scottish regiments sent at that time to the West Indies. A memorial of his experience there may be found in a lecture which he published on Burmuda.

In 1861 he was appointed as a missionary to Nagpore in India. He was almost an immediate successor to the Rev. Robt. Hunter, whose health and nerve had gone by the shock received at the news of his brother's murder in the same town. Shortly afterwards, he was transferred to Bombay, and for the last ten or twelve years of Dr. John Wilson's life, he was the good Doctor's chief working associate, and on his death Mr. Stothert was appointed Principal of the Free General Assembly's Institution, now known as the Wilson College. From failing health he retired from the Mission about fifteen years ago, but made India his home, and the welfare of its peoples a great aim of his later life. Mr. Stothert was a cultured scholar of unusual breadth, and knew the classical languages of East and West, and several of the spoken languages both of Europe and of India. He took a keen interest in all questions of progress and social well-being. As his circumstances were affluent, he was enabled to indulge freely in his catholic charities to the poor. He had a quiet personal dignity which made him equally at home in any rank. His life was characterised by a lofty integrity in aim and action. Behind everything was an intense religious faith and a spirit of entire self-denying consecration to his Master. Perhaps the strongest friendship he formed on earth for one outside his own family, was that with the revered missionary, the late Rev. George Bowen. Very many Sunday mornings saw them breakfast together. They were indeed kindred spirits.

Mr. Stothert's health prevented him from applying himself much to desk-work, even if he had any ambition to leave an adequate memorial of his ability. In his earlier life he translated a volume of the Early Fathers for the Anti-Nicene Library. He was a deep thinker, and an impressive speaker. His only child, a daughter, died three years ago, and was buried at Kirkee, where also, on the morning of October 23rd, the remains of the father were laid. The widow mourns the double loss. Mr. Stothert's friends, and the poor in several parts of this Presidency, will long feel a great gap by the loss of their true and good friend.

The late Professor Arthur Barrett, B. A.

We regret to learn of the death, from pneumonia, in South Africa, of Professor Arthur Barrett, B. A., late Professor of English Literature in the Deccan College for several years, who retired on pension towards the end of March 1898. He was born in April 1836, and died in his sixty-second year. Mr. Barrett joined the service in August 1865, and was posted as Vice-Principal of the Elphinstone High School at Bombay. Having officiated as Principal of the School from June 1870 to December 1871, he had leave to Europe on medical certificate for twenty months. Returning to this country in October 1876, Mr. Barrett discharged the duties of Vice-Principal and Officiating Principal of the Elphinstone High School until December 1877, when he was transferred to Ahmedabad as Head Master of the High School there. He returned to Bombay in June 1878 as Officiating Professor of English Literature in the Elphinstone College, the responsible duties of which office he continued to discharge satisfactorily, except for a short period, till September 1880, when he was appointed Principal of the Elphinstone High School. In December 1882, we find Mr. Barrett officiating in the chair of Professor of Logic and Moral Philosophy at the Deccan College, and in the following year, that is, in March 1883, promoted to the substantive appointment of Professor of English Literature in the Elphinstone College. He had a two years' furlough to Europe from May 1884 to May 1886, and on his return to this country officiated as Professor of Moral Philosophy and Logic in the Deccan College. Having for a time reverted to his substantive appointment of Professor of English Literature in the Elphinstone College, Mr. Barrett was transferred to the Hyderabad Assigned Districts, where he officiated for about a year as Director of Public Instruction. Mr. Barrett returned to the Elphinstone College in June 1890; and, after enjoying a month's privilege leave, was appointed in January 1891 as Professor of English Literature in the Deccan College, which post he held till his retirement on pension towards the end of March 1896.

The late Rao Bahadur Runchodlal Chotalal, C. I. E.

This distinguished citizen of Ahmedabad died on Wednesday, the 28th ultimo, at the age of 78 years. He was the pioneer of mill industry in Ahmedabad, which can now boast of twenty-five mills. As President of the Municipality of that town from its inauguration, his services were unsurpassed, for he vigorously brought forward measures which rendered Ahmedabad one of the cleanest and healthiest cities of Guzerat. It was largely owing to his services that Ahmedabad secured an excellent supply of potable water, the supply reaching in the hot weather the total of thirty-five lakhs of gallons in twenty-four hours. The enormous mass of water brought into the city necessitated an improvement in the drainage, which was formerly in a very bad condition. Mr. Runchodlal put himself in communication with Mr. Baldwin Latham, the eminent sanitary engineer and speedily placed the drainage on a satisfactory basis. These two highly important matters must long stand as monuments to his fellow-citizens of his zeal and interest in the welfare of Ahmedabad. That that city has been kept free from plague in an epidemic form is greatly due to the successful measures he adopted.

Mr. Runchodlal began his career as a Government servant about the year 1870, but much of his talents and energy has been devoted to the mill industry of Ahmedabad. For his public services, Government nominated him a Member of the Legislative Council, to which he was twice re-elected. While he served on the Council, he was known for his independence, and for the knowledge brought to bear on the Bills brought forward. In 1886, Government conferred on him the title of Companion of the Indian Empire. Ahmedabad is studded with the monuments of his charity. The establishment and endowment of the Runchodlal Dispensary and the Victoria Jubilee Dispensary cost him Rs. 42,000 and Rs. 33,000, respectively. Last year he spent Rs. 2,000 on adding another ward to the Victoria Jubilee Dispensary. His amiable and courteous disposition made him hosts of friends in Guzerat and in the Bombay Presidency.

The Eyesight of Children.

MR. BRUDENELL CARTER, F. R. C. S., recently made a valuable contribution to scholastic literature by a paper which he read before the Society of Arts, London, on "The eyesight of children." The paper, which we make no apology for giving at full length, further on, was fully discussed. Several questions were raised as to whether, on the whole, town sight was bad or short, and country sight long; whether long sight could be obtained by practice; or whether anything could be done in the training of the eye to alter its form and so cure defects. And although it was generally agreed that some people, from having to use their sight for long distances through many generations, had acquired the power of long sight, yet what really happened was that the owner of the eye learned what to look for. It is well known that a person accustomed to play golf would see where the ball went much better than a man with better sight who did not practice the game. In addition to increased knowledge of what to look for, there is an increased sensitiveness to the light coming from the object, which may be gained by practice, but it is physically impossible for the axis of the eyeball to be shortened. There is not much more authority for the statement so widely believed that the eyes of savage races are any better than our own. The sight of the Tartar who saw the satellite of Jupiter would be exceeded by the late Mr. Dawes, a country minister, who could see with the naked eye double stars and many other celestial objects with perfectly telescopic vision. No doubt, however, to some extent people learn by careful observation to recognize the blurred images they see. In several instances when young men, candidates for the army, were just on the border-land, and it was a question whether they could pass the examination, when advised to study the printed letters at the distance from which they would have to read them, and try to learn what they looked like to them, results favourable to the candidate had followed.

Why in our schools may not a register be kept of how children can see when they first come to school? If teachers use the simple instrument termed the optometer, which is quite sufficient for a preliminary examination, they are perfectly capable of testing whether each child's sight is normal or sub-normal. An oculist can examine the children's eyes more in detail, and indicate the defects and how they may be met. In Bombay there are several skilled medical practitioners who would, we are sure, gratuitously examine the eyes of children sent to them for examination by school authorities. We can remember that some six or seven years ago Dr. J. A. Da-Gama interested himself much in this question, but we fear neither parents nor school authorities were roused to any useful action. If school authorities do not move, the matter is likely to remain as it is, as the apathy of parents generally as to the defective eye-sight of their children is simply incredible.

So far as schools are concerned, the Government Educational Authorities have paid some attention to the conditions upon which new schools are being built, and they generally enforce the recognized principle that the light must fall from the left—a condition which can be generally obtained. But in cases where houses have been rented which were not originally built for school use, it frequently happens that almost all the light comes over the pupil's shoulder. In these cases the school cannot be pulled down and rebuilt, nor even a re-arrangement of the furniture be made so as to let the light fall properly. Even where the light falls normally, it is difficult to find a proper desk and seat which enables a child to sit so that the eyes are at a proper distance from his work without undue effort. To ensure that, the edge of the seat should come flush with the edge of the desk, and not, as generally happens, be so fixed that a considerable distance lies between, which causes the child to bend forward. Nor must it be forgotten, when other evils are considered, that defective printing, wretched paper, and, especially, too small print, cause serious injury to the eye-sight.

It is melancholy to see the increasing number of quite young persons who wear spectacles. In Indian towns floods of the most useless, if not absolutely harmful spectacles overflow the bazaars, and are vended about by itinerant oculists on the streets. As to whether children with defective vision should wear even good spectacles habitually, is an absolutely individual question: no general rule can be laid down.

It is a matter of notoriety that teachers suffer seriously from defective light in school-rooms, whatever pupils do. The sight of a large majority of teachers is below the average, and a great many have to wear spectacles, though comparatively young. How far this is due to defective light in schools, or to over-straining of their eyes, especially at night, it would be difficult to say; but it is a serious matter.

Were the Educational Department to call the attention of all teachers of Government, and Government-aided schools, to the importance of this subject, much good would doubtless result, and the conditions of light, position, and so on, would be favourably affected, to the lasting benefit of pupils both present and future.

THE EYESIGHT OF CHILDREN.

BY. R. BRUDENELL CARTER, F. R. C. S.

"The eyes of children must usually be ranked as the most precious of their possessions, and as possessions which, both in the individual and in successive generations, are capable of being improved by cultivation and of being injured by exposure to unfavourable conditions. It will be my object, as far as may be possible within the limits of time available for the purpose, to direct your attention to the chief agencies which, during the time of childhood, have been found to be either favourable or detrimental to vision, and to show in what way the former may be encouraged, and the latter may be obviated. For this purpose, a brief account of the eye as an instrument seems to be an essential preliminary. In its general characters, the eye resembles a photographer's camera. It is a sort of box, spherical in outline, formed of a strong and dense external tunic, blackened or at least darkened interiorly, presenting in front a transparent window, called the cornea, a coloured diaphragm or stop, the iris with a central opening for the admission of light, called the pupil, and a bi-convex lens, which forms, at its focal length, a reduced and inverted image of the objects of vision. This image falls upon a membrane called the retina, which corresponds to the ground glass screen of the camera. If we take the eye of a freshly killed animal, and carefully peel off the investing membrane at the back, so as to expose the retina, and then turn the front of the eye towards the landscape, we shall see an inverted image or picture of this landscape in the eye, just as we should see it in the glass of a kodak, when selecting a point of view for a picture. The picture in the eye, when this is in proper focus, is better than that of an ordinary camera, because on account of th[illegible]ed shape of the eye ball, all parts of the retina which are at the same distance from the lens. [illegible] camera, as we all know, the centre of the flat glass screen is nearer to the lens than the marginal parts, and hence although the defect is rendered practically unimportant by various mechanical contrivances, a picture which is centrally perfect is less well defined at its boundaries. The retina itself is an exceedingly complicated nervous structure, of which the most important portion, so far as we are now concerned with it, is an infinitely fine mosaic, formed by the terminations of the innumerable fibres of the optic nerve. The closely packed elements of this mosaic are brought by reciprocal pressure into hexagonal form, and each tiny hexagon is the terminal surface of a fibre which conducts the visual impression made upon it to the brain. How this conduction is effected, or how the merely physical picture produced within the eye is translated into consciousness we do not know. What we do know is that clear definition in the picture is essential to clear perception by the mind. If we look through a telescope which is out of focus, the retina receives a blurred image, and from this the mind obtains only a correspondingly blurred idea.

The production of a clear image upon the retina, like the production of a clear image in a camera, depends upon the simple condition that the lens, by which the image is formed, shall be of the right strength, and shall be situate at the right distance from the screen. The focal length of a lens is measured by the distance from it which parallel rays of light, such as proceed from distant objects, are brought to a point in such a way as to form a picture; and this is called its principal focal length. When a camera is directed to distant objects, its lens should be its own focal length from the screen. In this condition, if the camera be turned to a near object the image of that object will be blurred, and only be rendered clear by increasing the strength of the lens or by increasing its distance from the screen. In some cameras the lens is moved to and fro by a screw, in others, especially in some of the modern "snap-shot" forms, extra lenses are provided, to be put over the fixed one and to increase its strength in proportion to the nearness of the near object. Whatever is done, the principle is the same. If the distance between the lens and the screen be invariable, the lens must be stronger, that is, must have a shorter focal length for a near object than for a distant one. We shall presently see in what way these considerations become of practical importance.

[illegible] as the typical human eye, one which is called *emme*[illegible]. The word simply signifies to be *in measure*, or to be [illegible] correct proportions, and it is applied to a state in which the actual length of the eye ball, from front to back, is such that the retina precisely corresponds with the focal length of the lens. In such a condition, of course, when the passive eye is directed towards a distant object, a perfectly clear and defined image of that object is formed upon the retina. If the eye, remaining unchanged, were then directed towards a near object, the image of that object would be blurred and indistinct. The distance between the lens and the retina is practically invariable, and, therefore, in order to obtain a clear image of the near object, the strength of the lens must be increased, just as in a snap-shot camera, an additional lens is provided to be placed over the permanent one. In the eye, the change is effected by muscular effort. The details of the mechanism are open to some doubt, but the general effect is that the lens, when the eye is directed to a near object, is compressed in such a manner as to become more convex and therefore stronger. The act is called the act of accommodation, and we are said to "accommodate" for the distance of the near object, which clearly, through the sense of vision, determines the amount of the effort; this has to be greater and greater, as the object is brought nearer and nearer. If you take a piece of stretched net, and hold it between the eye and a printed page, you will see that if you try to read the page, you can do so, although dimly conscious of the net as an interposed film. If you increase the accommodation, so as to look at the net and to see the threads of which it is composed, the letter will no longer be legible. For then the accommodation will be in excess of what their distance requires; and if the eyes be again directed to them with clear vision the accommodation will be less than that which the fibres of the net require. The essential characteristics, therefore, of the emmetropic, or as it is sometimes called the normal eye, are that it obtains clear vision of distant objects when in a state of rest, and that it obtains clear vision of near objects by virtue of an effort, which increases in degree as the object approaches. For every such eye there is a limit to its power of accommodation effort, that is to say there is a near point, nearer than which clear vision cannot be obtained. This near point is at its nearest at about eleven years of age, and it slowly recedes from the eye in consequence of the gradual diminution of the power of accommodation, as life advances. Elderly people, before they begin to use spectacles for near objects, such as print, find it necessary to hold these objects further and further from the eyes in order to see them distinctly. To the distant vision of emmetropic eyes there is no limit other than such as may be imposed, in a way presently to be described, by the size of the object in relation to its distance, or by the interception of the light proceeding from it by the atmosphere. On a clear night, for example, emmetropic eyes obtained distinct vision of the markings on the surface of the moon.

The emmetropic eye, the eye that is "in measure" may be further described as a well proportioned eye, the parts of which are in harmonious relation with each other; and like well proportioned organs in general it is of greater endurance and better working capacity, than one in which correct proportions are not maintained. Its correctness depends, you will remember, upon the identity of two distinct measurements, the distance from the optical centre of the eye at which the visual image is formed, and the distance from the same point of the screen on which the image is received.

If we assume the distance at which the image is formed to be invariable it will at once be evident that the other distance, that of the position of the retina or screen, may vary in opposite directions by being too near or by being too far away, and that we thus obtain, two distinct and opposite types of disproportion, which will severally produce different effects.

We will take, in the first instance, the form of disproportion in which the screen is too near, or in which relatively to correct proportion, the eye is flattened, or too short from front to back. The late Professor Donders, of Utrecht, by whom this condition was discovered, called it hypermetropia, or overmeasure, a nomenclature which would indicate that the disproportion was on the side of the image forming, rather than that of the image receiving, apparatus. As far as we can ascertain, however, the contrary is usually the case, and hypermetropia is really what I much prefer to call it, flat-eye. In point of fact the eye is underdeveloped, undergrown; and we shall see presently that this underdevelopment, or undergrowth sometimes applies not only to the bulk of the organ as a whole and to the comparatively short distance between the optical centre and the retina, but also to the formation and respective power of the nerve filaments of which the screen is composed. I have already mentioned, that if we take the eye of a recently killed animal—that of a bullock, from its size, is convenient for the experiment—and expose without injuring the retina by the careful removal of a portion of the external investing membrane, we shall, on turning the front of the eye towards any object, such as a landscape, see a clearly defined inverted image of the landscape on the exposed retina precisely as if it were the ground glass screen of a camera. If we were to repeat the experiment with a flat-eye we should see upon its retina, instead of a defined picture, only a blurr, or a picture out of focus; while if we held a screen a short distance behind the retina, we should obtain a distinct picture upon that. In other words, the flat eye, when passive or at rest, has no clear vision of anything, and it only obtains clear vision by an effort of the same kind as that which is made by a normal eye when directed to a near object. The eye cannot lengthen itself or increase the distance between its optical centre and its screen, and it is compelled to overcome its faulty shape by an exercise of accommodation, that is, by increasing the curvature, and so the optical effect of its internal lens. Such an effort being required for distant objects must manifestly be increased for near ones. The effort is called forth by imperfect seeing, and can hardly be described as voluntary, so irresistible is the desire to see. It may, of course, be continued and increased by voluntary effort, but it can seldom be completely relaxed, and the result is that the flat-eye is never at rest, but is working, when directed towards distant objects in the same way at the normal eye when directed to the print of a book. The amount of effort necessary for good vision will depend, of course, upon the degree of flatness and the power of maintaining it will depend upon the strength and tenacity of the muscles by which the necessary work is accomplished. When the flatness is not excessive in degree, as the muscles of accommodation are strong, the proprietor of flat eyes may suffer little or no inconvenience from them; but where the opposite conditions obtain, the distress incidental to sustained visual effort may be so great as to involve incapacity for many occupations, and sometimes an increased liability to disease.

We next come to the opposite condition, in which the distance between the optical centre of the eye and the screen is too great instead of being too small and in which the eye instead of being unduly flat is unduly elongated from front to back. This elongated eye is the physical cause of what is properly called short sight. If we were to expose a bit of the retina of such an eye, and turn the front of it towards the landscape, we should obtain only a blurred picture, and if we were to hold a ground glass screen behind the retina, instead of better definition, as with the flat eye we should obtain only increased indistinctness. But if, instead of directing the eye towards a distant object, we were to direct it towards one sufficiently near, we should then obtain a clear image; and in this way, we should repeat the daily experience of shortsighted people. They can see perfectly things which are sufficiently near, but they can only see indistinctly things which lie beyond some definite measurable distance, which varies according to the degree of elongation of the eye, and is the far point for each short-sighted person. The normal eye, you will remember, has no distant limit, but only a near limit, while the short-sighted eye has a distant limit, a foot it may be, or a yard, beyond which it cannot see clearly without optical assistance. Moreover, unlike the flat eye, it can do nothing to overcome its own defect, which would be aggravated instead of being improved by an effort of accommodation. It is only by an apparent exception to this statement that the short-sighted see better by half closing their eye lids into a climk; this not being an adjustment of the eye itself, but only the use of the lids as an external apparatus for cutting off the most external portions of the pencils of light. The habit of partial closing of the lids has given rise to the word *myopia*, from the Greek, signifying to close the eyes, by which short-sight is usually designated. If we were to follow the time of nomenclature adopted by Donders, the eight term would be hypometropia, but for myself, I prefer to say short-sight, just as I prefer to say flat-eye.

The evils, attendant upon short-sight, are much greater than those of flat eye, but fortunately the condition itself is far less common, although still much more so than could be desired. Flat-eye is obviously a matter of formation, often, no doubt, of intended formation; and in favourable circumstances it often, diminishes during growth, the eyes attaining better proportions than they originally possessed. Short-sight, on the other hand, appears to depend usually upon a yielding or stretching of the ocular tunics under the stress of work, and to be due rather to an intended weakness of these tunics, involving liability to stretch, than to an orginally faulty shape of the eye-ball. It almost follows that short-sight is very liable under unfavourable conditions, to increase in degree with some rapidity; and when it does so the strain thrown upon the internal membrane of the eye is very apt to occasion absolute disease.

Moreover, it must be remembered that a shorted-sighted child grows up with but a limited knowledge of its environments. It cannot see clearly, let us say, any object which is more than three feet distant from its eyes. This means deprivation of nearly all the beauties of nature and art, incapacity to perceive the expression of the human face, a sapping of the faculty of observation at its very root, and, generally speaking, a consequent incapacity to take long or general views. The mind is fastened upon the details which alone the eyes can see and appreciate; and experience sanctions the extension of the expression short-sighted from the eyes to the judgment. To a short-sighted child the external world presents comparatively few attractions and it is usually his delight to be coiled nose and knees together in some half-lighted corner, absorbed in a book.

The evils of both these malformations of the eye are, as a matter of course, largely dependent upon their degree, and this is measured in every case by the strength of the lens which is required to correct them. For every flat-eye there is a convex lens, and for every short-sighted eye there is a concave lens, which will render the mal-proportioned organ emmetropic, which, in the flat eye, will bring forward the focus of its own optical apparatus, and in the short-sighted eye will push back that focus, so that in both cases it falls upon the retina when the eye itself is passive. We use, as a unit of measurement, a lens, the focal length of which is one metre, and we call this a dioptre. Flatness of less than one dioptre and a half, or two dioptres, is scarcely felt as an inconvenience by strong and healthy people, and degrees above four or five dioptres are seldom met with. In short sight anything under two and a half dioptres would be called slight or moderate, and anything above five or six would be called high; but cases running up to twenty or more dioptres are occasionally met with. A person with five dioptres of short-sight could not read small print at a greater distance from the eyes than four inches. It used to be said of a late statesman, that when he read, his eye-lashes could be heard to scrape on the paper.

We may now proceed to consider the determining causes of the quality or acuteness of vision, and the way in which this quality is estimated, either in a normal eye, or in one which is rendered normal by the addition of the lens which corrects its flatness or its short-sight. In order that an object may be clearly seen, it is necessary that the image of it formed upon the retina should be of a certain magnitude, and the magnitude of the image depends partly upon the size of the object, and partly upon its distance. It is said to subtend a certain visual angle; the visual angle being that which is formed by two lines proceeding from the extremities of the object to meet at the optical centre of the eye, just behind the opening of the pupil. The rays of light proceeding from these extremities meet and over-crop within the eye at its optical centre, a point usually about 17 millimetres from the retina. In their further course over those 17 millimetres they diverge, and thus they finally include a retinal area the size of which is governed by that of the angle at which they meet.

Now the word vision, or seeing, when employed in its physiological sense, does not mean the same perception of the presence of an object, but the recognition of its characters. I could easily remove these letters [Shown] to a distance at which they would be perceptible as black smudges, but would no longer be visible as characters which you could read and name; and at such a greater distance, you would correctly be said to "perceive," but not to see them; you would perceive objects but you would not be certain what they were. Defining vision, as the power of recognizing the essential characters of the object, it is found to require, for such letters as these, that each letter as a whole should subtend a visual angle of about five minutes, while the parts or limbs each subtend to a visual angle of one minute. The power to see, under the specified angles, is defined as normal vision, and is the accepted standard of the Royal Navy; but there are many people who see better than this, that is, who can see under a still smaller visual angle. There are certain objects which, on a clear day, can be perceived at great distances, and people talk about seeing them, but they are using the word in its popular and not in its exact sense. A flag staff is such an object, and may often be perceived as a vertical dark line at a great distance. But, if there were two flag-staffs placed side by side, with an interval between them equal to the diameter of each, the far distant observer would not be able to see the separateness of the two, although he might perceive that the dark line seemed thicker than usual. In the same way we perceive many stars as points of light somewhat diffused by atmospheric dispersion, but we cannot see that some of them are double until we obtain a larger image by the help of a telescope. We cannot see the separateness of the two bodies by which the spot of light is constituted. Now, the power of seeing separateness, of seeing, for example, the two intervals which separate the three horizontal limits of the letter E, only exists when the image is of such a size that at least one entire hexagon, the termination of one fibre, is left untouched by the images of the limbs, and stands clear and unaffected between them. It follows that what is called the "acuteness" of sight, the power of distinguishing the component parts of a distant object, and of recognizing its characters, even when a perfect retinal image has been formed, must depend for its degree upon the minuteness of the retinal mosaic, upon the absolute smallness, that is, of the diameter of the individual hexagons of which that mosaic is composed. If the hexagons are comparatively large and coarse, a larger image, that is to say, a larger or a nearer object will be required in order that unaffected hexagons may be left in the intervals between its component parts.

(To be continued.)

History and Philosophy.

IT is a pity that the discussion of the 21st of September in the Senate came to naught. But we cannot profess to feel surprised at this result. The whole matter is only another illustration of the devastating inconsequence which brands most of the Bombay University's attempts at reform.

The original scheme for the M. A. degree in the historical and philosophical course was obviously modelled on the Oxford 'Greats' examination, in which history and philosophy are closely combined, though a considerable knowledge of the Greek and Latin classics is also demanded. Now 'Greats' from the high standard required for the first class has acquired a reputation which is confirmed by the excellent educative results of the course prescribed. Probably there is no other literary training in the world which has proved so stimulating and suggestive to original and thoughtful minds. But, then, the aim of 'Greats' is not to produce philosophers or even historians. It is content with the less ambitious object of teaching men to think for themselves, and the two branches with which it deals serve as useful checks on each other. Vague speculation finds itself supplemented by the more solid material which history furnishes, while the flat and prosaic facts of history are 'aërated,' if we may use the term, by the more volatile influences of philosophy. Above all, most men who pass through 'Greats' emerge imbued with the following principles: (1) That mere facts (however 'scientific') are worth nothing; (2) that no system can explain all the facts; (3) that the sensible man is he who accepts, and excepts as little as he may.

In Bombay, while adopting the form of the Oxford plan, we have misconceived its spirit, and, without unduly stimulating an unhealthy originality of thought, we have apparently aimed at turning out fully equipped 'philosophers' (of as anti-sceptical a sort as may be) and 'genuine historians,' that is, it seems, men who really do know their Medows Taylor, their Bright, and their Merivale. But, alas, these two consummations, so devoutly desired by our learned professors, have been found antagonistic and almost incompatible. The Molock of specialism clamours for fresh victims, and a system insufficiently appreciated, if not unintelligently adopted, is promptly sacrificed. But the necessary revision of the courses entailed by the change involves fresh difficulties. We are to produce 'philosophers' henceforth; ay, but of what school? And straightway the sects are all at variance and a fresh battle of the books ensues. Dogmatic casuistry would seek the safe limitation of Aristotle and the Schoolmen (selected), while rationalistic Calvinism dallies with Plato, hesitates upon the brink of Hobbes, and recoils shuddering from the abyss of Hume to compromise itself in the seductive embraces of Martineau. The 'Government professors' (who meantime lie low) are stigmatized as Galleos doubly-distilled, until in the fulness of time the conflicting parties call them in as *amici curiæ*, with the fully understood reservation that their recommendations will be only adopted so far as the disputants see fit, and as their Aryan brethren in the Senate (who for the most part are blissfully and impartially ignorant of all the facts and all the theories involved) shall sanction by their vote. That is how we manage things in the Bombay University, and then we wonder to find our best reforms, 'so frequently deceased.'

Nor is this all. By way of escaping a deadlock, two committees are formed to deal respectively with those branches on which their members are particularly qualified to speak. Nominally they act together and present a joint report, in which it might naturally be expected that historians would not have much to say upon philosophy, nor philosophers upon history. Yet, what happens? Our experts, weary of limiting themselves to the monotony of their proper functions, launch out into criticism, nay, into condemnation, of the proposals of their colleagues of the other branch, and we find historians, guiltless of a passing acquaintance with even the binding of a Kant or the De Anima, discoursing gaily upon the *Categorical Imperative* and the relation of *To noetikon* to *To noeton*, while a philosopher holds forth upon the obliquity of the views of certain writers of history. Thus disrupted proposals are brought before the Senate, and after a purposeless discussion the matter is adjourned, possibly to the Greek Calends.

So much for general methods. In regard to the details of the new history scheme, little need be said. It has the great virtues of simplicity, consistency, and practical utility, and is based upon the principle—than which we can imagine none sounder for an Indian University—that the student should be thoroughly conversant with the histories of India and England, the two countries with which he is most intimately concerned. It is a pity, however, that more scope was not allowed for extra voluntary subjects, such as certain periods of ancient and mediæval history. There need be no compulsion placed on a man to take up one or more of these, but at least an opportunity should be afforded (as is done in similar cases at Oxford) to men who feel drawn towards such studies.

We ought to remember that our M. A. Examination is our highest test—our only *honours* test, in fact; therefore, its range should not be as restricted as that of lower Examinations. No doubt, certain professorial lecture-notes would in that case need revision and extension, and possibly new and unfamiliar regions of history would have to be explored, but surely this should be an incentive in itself to professors whose hearts are in their work and who are capable of grappling with "The Book of the Dead" as lightly as with the Monumentum Ancigranum.

Mr. Banaji's scheme was presumably offered in order to make good the deficiency notified above, but he errs in putting it forward as a substitute rather than as a supplement, for in so doing he mistakes a non-essential for the essential. It is not necessary that our M. A. candidates should acquire a patch-work acquaintance with defunct civilizations, oriental or otherwise, but it would be a standing reproach if they had not a thorough and continuous knowledge of the histories of India and England. Mr. Banaji's sneer at congresswalas and Wren's "crammees" in connection with Professor Muller's ideas of teaching history was ludicrously beside the mark. No sane person holds up either the one or the other as ideal products of, we will not say *education*, but instruction. In our opinion, Mr. Banaji's schemes are more likely to produce an ill-digested, useless superficiality of historical antiquarianism than that sound and intelligent knowledge of vital history at which the Committee's scheme has aimed. We are probably as well aware of the importance of Greek, Roman, and early European history as most people, but everything has its place, and we do not feel that in a curriculum for Hindus, Mussalmen, and Parsis, the place of these periods of history should bulk very largely. It would be hardly less absurd to expect a special study of Asiatic history from English students indiscriminately. That copies of original and contemporary documents, particularly for the study of economic and political history, are essential every one knows already, and this most important form of study is just what the Committee intended to give special prominence to. Such copies can be now easily obtained, and when by their means a proper knowledge of past facts is diffused among the higher Indian students, we shall have no fear of their becoming seditious 'Congresswalas' or fallacy-mongering sciolists. Lastly, may we ask Mr. Banaji if he is prepared to lecture from the cuneiform, hieroglyphic, or demotic 'documents' which form the originals from which the Accadian, proto-Persian and Egyptian histories are constructed. If not, we fear he will some fine day find himself gravelled for lack of matter, and what also will become of his principle of going to the historical fountain-head?

Of the philosophy scheme, we say nothing. Its chief supporter was not present to advocate it, and his colleague had allowed himself to be overawed by hostile criticism and ended in reversing the part of the prophet Balaam, damning where a blessing would have been expected, even if not appropriate.

The Study of Astronomy in India.

I.

SOME LESSONS OF THE RECENT ECLIPSE.

THE Eclipse has come and gone, and the preliminary notices of the result of the expeditions of the most important parties have already been placed before the Royal Society. Without attempting here to discuss either the deliberately-worked-out discoveries, or such of them as lie hidden in the photographic film, to unravel which the energies of a man of even the type of a Lockyer will take considerable time, if at all, we shall endeavour to show what work, besides the taking of the photographs, principally engaged the attention of the observers during the eclipse, what general ideas and theories were thereby strengthened or which of them remained either unproved or were negatived. A point of considerable interest to scientists was the extent and shape which the corona was likely to present during the eclipse, seeing that the year 1898 was near to the minimum phase of what is called the decennial period. It was Lockyer who first pointed out that the periodical variation in the form of the corona seemed to depend upon this period. It has been noticed for over a century now that the activity in the sun, measured by the disturbances in its atmosphere and as evidenced by the dark spots observed on the surface of the sun, fluctuates through phases of a maximum and a minimum in a period of about eleven years. We had the maxima in the years 1871, 1883, 1892, and the minima in 1878 and 1889. The year 1898 thus marked the phase of a minimum of activity, and the corona was expected to be about similar to that observed in the eclipse of 1878, fainter, smaller in extent with equitorial elongations, and unaccompanied by streamers. To the surprise of many, though not of those who had had opportunities of previously examining the daily magnetic charts, the corona shone forth as brilliant and as extensive as if the eclipse had occurred at the period of maximum activity in the sun. Let us here explain the connection which exists, not merely as an hypothesis, but more or less asa proved fact, between the magnetic phenomena and sun spots. The magnetic needle as it points to north, as every one knows, is acted upon by some forces which at times so much disturb the equilibrium of the magnet as to give rise to so-called 'Magnetic storms.' Delicately suspended magnets in magnetographs which record the movements automatically, register these storms whenever they occur *simultaneously* over the different parts of the world, wherever these instruments are located. The registration of the phenomenon all over the world at the same moment is only possible, if the cause, whatever it may be, of these disturbances exists *outside* and *not within* the earth. And when spots are observed at the same time to obscure the surface of the sun, which, otherwise, is more or less clear and bright, the simultaneous occurrence of the phenomena furnish strong evidence that either the magnetic disturbance on our earth is directly due to the disturbance in the sun, or, as suggested by Lord Kelvin, both are possibly the simultaneous effect of a cause existing outside the solar system. That the sun was hotter at least during the time of the eclipse than usual—the direct result of these disturbances—cannot be doubted now. In fact, Lockyer goes a step further, and seems to lay particular stress on the fact that, as since the end of 1892 scarcely any iron lines have been recorded as widened in the spectrum of the sun spots, chemically the maximum sun-spot condition of high temperature has been retained since then. Referring to to the sun-spot period, he says: "We may say broadly that the history of the solar weather consists in the changes brought about in the sun's atmosphere by the progress of the disturbance beginning in high latitudes and ending near the equator, each disturbance taking about 11 years to run through its phases, the period of greatest intensity occurring at about three and a half years from its commencement," &c. The theory, no doubt, has been advanced after mature consideration, but we cannot let pass the view of the continuation of a *single* disturbance through eleven years without a passing remark.

The temperature of the sun is very high. Lord Kelvin and Professor Langley put it down at 80,000° Sir Robert Ball at 180,000° while Pater Leodic at 1,000,000°. The values are somewhat startlingly different, but the fact remains that the lowest estimate even, is high enough for our purpose. With this high temperature the storms in the sun's atmosphere must be of vast magnitude indeed. If the indications of the magnetic storms are taken as representing in some way the magnitude and character of atmospheric disturbance in the sun, it must follow that these mighty storms, which are so suddenly brewed, come as suddenly to end, and last *for a short period only*. It is the *frequency* and *magnitude* of these storms which attain a maximum and go down to a minimum in the eleven-year period, and not a single disturbance, as Lockyer supposes which, attaining a maxima, dies out after a struggle of 11 years. The minimum period, therefore, need not necessarily be devoid of these solar disturbances. If the above reasoning is correct, it may be accepted that it was this *temporary* activity, perhaps the last flickering of the disturbance in the sun, which was the cause of the exceptional corona of the eclipse of 1898; and the lesson, therefore, would appear to formulate, (1) that the form and extent of the corona does not necessarily depend, as suggested by Lockyer upon the decennial period but must mainly be the result of the activity in the sun *at or about* the time of the eclipse, and inferentially, therefore, (2) that the coronal appendage passes from time to time, sometimes in a few days, at others in a few months (the shortest and longest times during which one and the same sun-spot has appeared to last on the surface of the sun), into different shapes and extent, depending upon the magnitude of the disturbance and possibly upon the location of the disturbance in reference to equator of the sun. In the above consideration the important fact that more than one sun-spot, possibly some days old, existed on the surface of the sun on the very day of the eclipse, should not be lost sight of.

The high temperature of the sun was also otherwise evidenced It must be known to students of physics that stars are classified under three heads in relation to their probable temperature, measured by the length of their spectrum in the *ultra* violet regions. It must also be known that in the spectra of the hottest stars we cannot find spectroscopic trace of iron at all. In stars of medium temperature we have iron evidenced by what are called "enhanced" lines only, while in the spectrum of cooler stars the arc spectrum is fully represented. We have thus a ready method of finding the relative temperature of the sun by an examination of the character and behaviour of one of these typical lines or sets of lines in the spectrum during the eclipse of the sun. Results of observations,—amongst which may be noted (1) enhanced lines, which were seen to exist in the chromosphere spectrum, and (2) the coronal spectrum which, otherwise should have been faint and more or less continuous, distinctly showed some of the bright lines,—have confirmed the expectation of high temperature.

The next question of importance and more interesting than others, is that of the composition and constitution of the atmosphere of the sun. It is well-known that in the spectrum of the sun Fraunhofers lines appear dark on bright back ground of prismatic colour. The origin of these lines is explained on the theory that bodies at high temperature and in the gaseous condition emit light of that particular colour which is readily absorbed from white light when the latter passes through a comparatively cooler vapour of the same substance. The sun, as is obvious, must be surrounded by an atmosphere made of comparatively cooler vapour of certain substances of which the nucleus is composed, and the white light, as it passes through this vapour, is robbed of some of its constituent colours which absent constituents appear as dark patches or lines in the otherwise continuous spectrum of the sun. Dark lines in the spectrum, therefore, is an absorption phenomenon, which merely demonstrates the absence of particular wave lengths of light (colours) by absorption. Lockyer first suggested the idea that this absorptive phenomenon was located to a narrow small zone about two seconds above the photosphere, called the 'reversing layer,' the position of which could be defined during a total eclipse by the so-called "flash," and which instantaneously changed all the *black* Fraunhöfers lines into *bright* lines. The theory was advanced diffidently and Lockyer himself negatived it subsequently, since which every eclipse has added fresh proofs to his altered theory, which, by the way, it may be stated, conforms more to the general ideas of physical laws than did the first theory with the so-called "flash" promulgated in the infancy of his own career. It does seem more reasonable to suppose that the atmosphere of the sun is composed of vapours resting upon the photosphere, which gradually thinning out and showing no distinct stratification, extend to the outermost limits of the corona, than to argue that the atmosphere of the sun consists of concentric layers of different compositions and substances distinct and sharp and with well defined surfaces. Evidence has been adduced in favour of the revised view, in the past eclipses controverting the original theory, and the rececnt eclipse, it is hoped, will help finally to bury it in oblivion. There is no flash, there cannot be any particular reversing layer, there is no sudden reversal of the lines. It is a gradual phenomenon the suddenness of the passage of the dark into bright lines at commencement and from bright to dark again at end of totality, to an unexperienced observer, is merely due to the rapidity with which the moon's limb sweeps across the face of the sun. In a phenomenon, which virtually lasts a very short period, there is perhaps no better detector of the gradual change than a dropping plate, which secures photographs as the spectrum passes through all the phases between a few seconds before and a few seconds after the totality—a series of pictures taken in a few seconds. It must become obvious, therefore, that a single exposure or a series of exposures mechanically made by the hand to secure the so-called 'flash' can at best furnish merely negative results, and the beginner only can jump to a sudden conclusion that he had after all secured the imaginary "flash" and localised the 'reversing layer.'

We cannot end this article without referring to a somewhat weak link in the strong chain of proofs adduced by spectroscopic researches in connection with the composition of the sun's atmosphere—the 'dissociation' hypothesis, without accepting which the results of spectroscopic work would appear all a myth. The hypothesis suggests, and not unreasonably, that bodies we call 'elements' here, if they also exist as such in the sun, they cannot, on account of the high temperature of the sun, possibly exist there in the same form as they do here, but must be dissociated into simpler forms. The net spectrum of the dissociated form of a single substance may, therefore, be slightly different from that given by the body as a whole, in which form it exists on our earth. In fact, the solar spectrum of many substances appear more or less to differ from the terrestrial spectrum of the same body in reference to wave length and intensities of metallic and Fraunhöfers lines. If to explain this discrepancy the dissociation hypothesis is not marshalled to our help, we are perforce driven into a corner and must come to but one conclusion, which is, that bodies, which are known on the surface of the earth, as such, do not exist in the sun at all. A veritable deathblow is thus given to the very fundamental principle on which spectroscopic work is based. The greatest achievement, therefore, of the eclipse parties would be to unravel fresh proofs to strengthen the dissociation hypothesis, and we have no doubt that the recent eclipse will add to our knowledge in reference to this important matter as no previous eclipse has done. The substance known as coronium, which was thought to belong exclusively to the sun and which gives peculiar lines in the coronal spectrum, of which no counterpart could be found in any terrestrial substance, has been lately successfully traced in the products of Vesuvius, eruptions. An important missing link is added thus in regard to identity of derivation of the sun and the earth from a common origin, to the proofs of which spectroscopic researches have already contributed so much.

M.

The Teachers' Association of Bombay.

A general meeting of the Association was held at St. Xavier's College on Thursday, the 1st September, with Mr. James MacDonald in the Chair.

Miss Edge, of the Z. B. and M. M. Girls' High School read a paper on the "Teaching of English Composition in its Earlier Stages." The essayist pointed out the great importance of the subject and complained that "it does not receive that careful systematic attention which it deserves." She showed the great need of regular and systematic teaching of this subject as of other branches of knowledge. If it was absurd to imagine that Grammar or Geography could be learned instinctively, was it not equally absurd to suppose that English Composition "could be known, like an axiom of Euclid, intuitively." Aim and method were indispensable to success in this branch of instruction. As regards the former, the writer said that the teacher's object should be—

(1) to instil a knowledge of good English ;
(2) to help that knowledge to be carried into practice ;
(3) to induce a love and admiration for good and great authors in prose and verse.

The faults the teacher should wish to check or prevent were, amongst others,—

(1) poverty of vocabulary;
(2) a loose, rambling style;
(3) faults of spelling, punctuation, grouping ideas into sentences and paragraphs.

The teacher's efforts should be directed to produce—

(1) facility of expression in speech and writing;
(2) freedom from self-consciousness;
(3) correctness of expression.

The essayist next gave a detailed outline of a scheme of Composition Teaching for the Junior Classes of Schools, recommending a "Composition Drill" at the close of the composition lesson. The "drill" was to be conducted somewhat in this way:—

(1) Any mistakes in spelling, punctuation, or order of words to be written on the board correctly.
(2) Any words in the spelling of which mistakes are likely to be made to be similarly written.

(3) Insist on care with regard to minor, though far from unimportant, points such as leaving a margin on the left hand side, proper writing of headings, correct division of words at the end of lines, &c.

Most of the views expressed by the essayist were endorsed by the Chairman who remarked that the knowledge of the principles of literary composition was as important for English as for Indian boys.

N. G. WELINKAR,
Hon. Secretary.

Educational Notes.

AN Educational Conference, consisting of Mr. R. D. Prior, M.A., Educational Inspector, Central Division; Mr. J. Oliver, Educational Inspector, Northern Division; Mr. Balwant Ramchundra Sahasrabudhe, B.A., Educational Inspector, Southern Division; Mr. J. G. Covernton, M.A., Professor of English and History, Elphinstone College; Rao Saheb R. B. Karandikar, B.A., Principal Training College, Dharwar; Rao Saheb M. H. Desai, B.A., Principal, Gujarat Training College, Ahmedabad; and Rao Saheb K. N. Sane, B.A., Principal, Poona Training College, was held during the last week of the past month (September 1898) at Poona under the presidency of the Honourable Mr. E. Giles, M.A., Director of Public Instruction, for the discussion of certain educational matters, including the Training College Codes.

THE UNIVERSITY SCHOOL FINAL EXAMINATION.

We have been reminded by a correspondent that in our July number we referred to a possible change in the conditions attached to the University School Final Examination, and that, since then, no sign whatever of any change has been discernible. If we remember rightly, our remark was founded upon a statement in the Quinquennial Report issued last year. In that Report the D. P. I. called attention to two difficulties which prevented the School Final Examination from being as popular as the Matriculation Examination: these were that the examination was held at Bombay only, and that the fee was higher than for the corresponding examination. We have had abundant evidence, even since July, that the Director has been busy dealing with schemes which are fully as important as the U. S. F., and knowing that these things cannot be done in a day, nor yet in a year, we do not consider that action in the matter has been too long delayed.

But our correspondent is much more reasonable when he tells us that "several experienced educationists complain of the present curriculum, and that some have even gone the length of passing it over altogether." He proposes to make such changes as will secure more interest in the subject taught, and if his proposal will secure an object so laudable, it might well receive careful consideration.

The first suggestion is that a Vernacular Report should be added to the other. It does not seem unreasonable that in what is emphatically a service examination a vernacular report should be demanded, as in the Public Service Certificate Examination. A second suggestion is to add Mensuration to the Arithmetic paper. We think the subject of Arithmetic sufficient work of itself.

The third suggestion comprises the whole of the Science Group, and requires serious consideration since it implies a change of principle. Of the ten optional subjects which make up the science portion prescribed for this examination, Natural Philosophy and Biology are the fifth and sixth respectively. *In N. Philosophy* a choice of three groups is allowed, *viz*:—

(1) Chemistry, with Statics, Dynamics, &c.
(2) „ „ Heat.
(3) „ „ Electricity and Magnetism.

In Biology, again, a selection is allowed of either Zoology with Animal Physiology, or of Botany. It is proposed to substitute only one subject to be called Natural Science. In it would be amalgamated N. Philosophy and Biology. The scheme would give no increase of work, but would undoubtedly render the instruction more interesting.

It would be :—Natural Science—Two papers.

1st
- (*a*) Physics with easy problems. Text-book—Balfour Stewart's Physics Primer.
- (*b*) Chemistry with easy problems. Text-book—Roscoe's Chemistry Primer.

2nd
- (*a*) Zoology. Text-Book—Nicholson's Outlines of Natural History.
- (*b*) Physiology—Foster's Physiology Primer.

There are several other suggestions offered, which, if space allow, we may refer to in a succeeding number.

MAHARASHTRA EDUCATION SOCIETY.

We have been favoured from Poona with the Report and Audited Balance Sheet of the Maharashtra Education Society, 1897-98. The members of the Society numbered 76 on the 31st March 1898. The loss to the Society by the death of Mr. A. V. Modak, C. I. E., a Member of Council and a warm friend of all social reforms, is feelingly alluded to.

The numbers on the rolls in 1896-97 and 97-98 were nearly equal, but, as the Institutions were closed from October 1897 to June 1898, in consequence of the prevalence of plague in the city, when the schools opened in June 1898, only 106 were entered. The numbers are gradually rising.

Brahmins form one-half of the total attendance, and other Hindus about one-third. 86 were pupils whose husbands were living, and 45 were widows, chiefly Brahmins, most of whom seek entrance to the Training College to qualify themselves to earn an independent livelihood.

The quality of instruction given, and the discipline maintained, have been highly praised by successive Inspectors. To Miss Hurford, the Lady Superintendent, and to all her assistants the Council give all credit for excellent work and management.

HIS EXCELLENCY THE GOVERNOR OF MADRAS, speaking at Nandyal a few days ago, had occasion to refer to the question of technical education which is now under the consideration of Government. The general idea of the Government policy was to make technical instruction pervade the whole educational system, commencing from the bottom, and rising by gradual stages to the top of the present educational system. It might then be advisable to start special institutions for the more advanced teaching of technical subjects.

Reviews.

FOREIGN CLASSICS FOR ENGLISH READERS.

(*Blackwood and Sons. 1s. each*).

Pascal, by Principal Tulloch.

As Principal Tulloch implies, Pascal is one of those 'classics' whom nowadays many people are satisfied to take for granted ; while others who might be inclined to read his famous "Provincial Letters" are frightened off by the horrid jargon of theological controversy that re-echoes through them. What civilized lay mind of the 19th century cares to trouble itself with those verbal monstrosities 'proximate power,' 'sufficient grace,' 'efficacious grace,' and so forth, or with the polemical sayings and doings of such *ferae naturae* as 'New Thomists' (can there really have been two sets of unhappy beings labelled 'Thomists,' so as to have required the distinction of 'Old' and 'New'), Jansenists, Molinists, and the like? No doubt, a knowledge of these things is necessary for the clerical profession, just as a knowledge of Justinian is required of English lawyers, but the more one reflects on the amount of practical good to be derived from such studies, the nearer one is forced to Kingsley's conclusion, "the further in theology, the further from God."

No, the Provincial Letters may be indisputable 'classics,' but we do not feel drawn towards them, even for the sake of their saving graces of wit and irony. It is otherwise with the "Pensées", which have a natural attraction for every thoughtful and open mind, and, of course, the scientific works have still a value to the students of the History of Science. Principal Tulloch might, we think, with advantage have made more of these and less of the polemical discussions, though this course would seem perhaps rather like presenting Hamlet without the hero. Still, in such matters, impartiality, or the nearest possible approach to it, is the chief requisite, and this quality we think must be conceded to the author, but naturally there may be some who will disagree with us. The book is pleasantly written, and contains a good deal of general information on Pascal's times, though we should have liked a clearer treatment of his personal relations with the Port Royalists.

Petrarch, by Henry Reeve.

This book begins at the wrong end, *i.e.*, with a character of Petrarch and a comparison of him with Dante, followed by a detailed but rather jerky sketch of his life.

We prefer to have the facts first put before us, and then the conclusions which the author may draw from them. Otherwise it seems as if the writer were afraid lest we should draw conclusions of our own, and so thrusts forward his own before we are in a position to resist. Important as Petrarch is from the historical point of view, a good account of him and his works must naturally be of interest to students of English Literature, and especially to lovers of Spenser and the Elizabethan poets. Mr. Read has made some attempt to discuss the relation between the Italian poet and English disciples of his, but the attempt does not strike us as particularly successful or even as adequate. Surely, Petrarch's influence on English poetry did not attain its final consummation in the work of Drummond of Hawthornden. Nor can we congratulate either the poet or his biographer on the metrical versions of the Italian original. These, in fact, belong to the class of 'elegant exercises,' and are chiefly marked by the rarity of their deviations into the realms of true poetry. We hasten to add that not Mr. Read, but a certain Macgregor (who had apparently strayed from his native heath into the less familiar regions of the Muses) is responsible for the majority of the more commonplace of these effusions.

Chaucer. The works of Geoffrey Chaucer, edited by A. W. Pollard, H. F. Heath, M. H. Liddell, and W. S. Mc Cormick. (Macmillan & Co. Globe edition.)

This complete edition will be most useful to students reading for their M. A. degree. It contains, besides the text of all the genuine poems and some of the doubtful ones, a series of short sketches of the MSS., and of the more noteworthy peculiarities of each of the poems; also a life of Chaucer, while here and there throughout the text occur short foot-notes. The editors have not adhered slavishly to Dr. Skeat's readings or to his spelling, and have views of their own on the sounding of the letter *e*. We do not think them always in the right (*e. g.*, in reading *saugh* for *sey*, Intro. to Man of Lawe's Tale), but, on the other hand, some of the forms preferred by them will seem more reasonable especially to Indian students (e. g., *Percyvell* for *Percivel*, *hand upon* for *hond vp-on*, *Cambyuskan* for *Canbyuscan*, etc.) We recommend the book to be read as a text in company with the notes of Drs. Morris and Skeat.

We have also glanced at the selection of English verse called '*Poet's Walk*' (Macmillan & Co.), the *raison* *d'être* of which, as now reproduced, is not very obvious, and at Woodward's '*Traveller and Deserted Village*' (George Bell and Sons), which contains a surfeit of grammatical and other notes, appendices, &c., which will be as balm to the note-collecting student and a desolation to those of his teachers who would prefer that he should learn to think for himself.

Book-keeping by Double Entry, by J. T. Medhurst, A. K. C. F. S. S.; G. Bell & Sons.

This is a work issued in answer to many demands made to the author to supplement his lectures published in a smaller work. It is a venture which must prove an assistance to Students for Theoretical, Practical, and Examination Work, and is divided into these three heads. Part III. gives in full the paper set in the Autumn of 1891, by the Society of Arts, the best known and most popular examining body in Great Britain. This paper is a good specimen of the papers set by the Society, and, if intelligently studied, it may well help a Student to First Class rank.

The same Publishers have issued a set of Examination papers, with a key to the same, by the same author. They have reached a Fourth Edition within a short time.

Commercial Arithmetic, by C. Pendlebury, M.A., and W. S. Beard, F. R. G. S.; G. Bell & Sons.

This book is based upon Mr. Pendlebury's Arithmetic, and meets the requirements of pupils on the modern or mercantile side of secondary schools, who may be preparing for a business career. It is assumed that students have already had a grounding in the elementary rules, and the Unitary method of solving problems. Methods of shortening work are pretty freely dealt with. The sections dealing with important branches of Commercial Arithmetic, such as Percentages, Foreign Exchange, Stocks and Shares are fairly complete. Throughout the book excellent examples have been chosen from most of the best examining bodies. The work is well adapted for commercial classes.

English Grammar, by M. W. Jennings, and revised by J. G. Jennings, M. A. (Oxon); Longmans Green, & Co.

The claim to originality in this work is the plan of illustrating all rules by examples taken from acknowledged classics. The portion devoted to Analysis of Sentences is slightly wanting in workable clearness, as the distinction between clauses and sentences is not carefully observed.

Books Received.

We have also received the following new books and new editions, some of which will be noticed later:—

Messrs. George Bell & Sons.—English Classics, Pope's Essay on Man, with Introduction and Notes by F. Ryland, M.A.

P. Ovidi Nas-onis Opera Ex Corpore Poetarvm Latinorvm. A Iohanne Percival Postage Edito Separatim Typis Impressa. Tomvs I., 2s. Tomvs II., 2s. Tomvs III., 2s.

Messrs. Adam & Charles Black.—('Sir Walter Scott' continuous Readers)—Quentin Durward, by H. W. Ord, B.A. 1s. net.

Battle-Pieces, in Prose and Verse, from Sir Walter Scott, by J. Higham, M.A. 1s. net.

Messrs. Blackie & Son.—Select Tales from Shakspeare, by Charles and Mary Lamb, with Introduction and Notes by David Frew, B.A. 1s. 6d.

Elementary Perspective, arranged to meet the Requirements of Architects and Draughtsmen and of Art Students preparing for the Elementary Examination of the Science and Art Department, by Lewes R. Crosskey. 3s 6d.

The Oxford Manuals of English History. Edited by C. W. C. Oman, M.A., Fellow of All Souls College, Oxford. In f'cap 8vo volumes, with Maps, &c., Cloth. 1s.

No. I.—The Making of the English Nation; B.C. 55—A.D. 1135. By C. G. Robertson, B.A., Fellow of All Souls College.

No. II.—King and Baronage; A.D. 1135-1328. By W. H. Hutton, M.A., Fellow and Tutor of St. John's College.

No. III.—The Hundred Years' War; A.D. 1328-1485. By C. W. C. Oman, M.A.

No. IV.—England and the Reformation; A.D. 1485-1603. By G. W. Powers, M.A., formerly Scholar of New College.

No. V.—King and Parliament; A.D. 1603-1714. By G. H. Wakeling, M.A., Lecturer in History at Wadham College.

No. VI.—The Making of the British Empire; A. D. 1714-1832. By Arthur Hassall, M.A., Student and Tutor of Christ Church.

The Raleigh History Readers, Part VII. The Growth of Greater Britain, a Sketch of the History of the British Colonies and Dependencies, by F. B. Kirkman, B.A. 1s. 9d.

Messrs. William Blackwood & Sons.—Foreign Classics for English Readers. Edited by Mrs. Oliphant.

Rabelais, by Sir Walter Besant. 1s.

Montaigne, by the Rev. W. Lucas Collins, M.A. 1s.

Blackwood's Leaving Certificate Handbooks. Paraphrasing, Analysis, and Correction of Sentences, by D. M. J. James. M.A. 1s.

The Cambridge University Press.—The Cambridge Series for Schools and Training Colleges.

The Aeneid of Vergil—Book I. Edited, with Notes and Vocabulary, by A. Sidgwick, M.A. 1s. 6d.

John Bunyan, by Thomas Babington Macaulay. Edited with Introduction and Notes, by Arthur D. Innes, M.A. 1s.

M. Tulli Ciceronis In Catilinam Oratio Prima Edited with Introduction, Notes, and Vocabulary, by J. H. Flather, M.A. 1s. 6d.

Ode On The Spring and The Bard, by Thomas Gray, Edited with Introduction and Notes, by D. C. Tovey, M.A. 8d.

Mr. A. M. Holden.—Professor Meiklejohn's Series.

A Junior Algebra, with answers by F. Oscar Lane, B.Sc. 2s.

Messrs. George Philip & Son.—New Popular Atlas of Astronomical, Physical, Political, and Classical Geography: A Series of Forty-eight coloured Plates, containing Seventy-Six Maps and Diagrams, with a complete Index. Edited by George Philip Junr., F.R.G.S. 3s. 6d.

Superintendent, Government Printing, Calcutta.—Agricultural Series, No. 26 (Fibres). Gossypium S. P. (Egyptian Cotton.) The Agricultural Ledger 1898—No. 9. A Memorandum by Major M. T. Lyde, I.S.C., Administrator, Radhanpur State. Experimental Cultivation of Egyptian Cotton in Radhanpur. 1 anna or 1d.

Entomological Series, No. 8. Silk (Mulberry.) Agricultural Ledger 1898—No. 10. Official Papers including Memoranda on the Sale by Sir George Birdwood, K.C.I.E., Opinions of Sir Thomas Wardle, Kt., and other experts consulted, &c., on the Sale of Raw Silk for the Kashmir Darbar.

Vegetable Product Series, No. 42 (Fibres.) Ananas Sativa. (Pine Apple.) Agricultural Ledger 1898—No. 11. Review of Correspondence showing results of a chemical examination in the Scientific Department of the Imperial Institute of a sample of the fibre prepared in Assam of Pine Apple Fibre.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 of 1898-99.

Poona, Office of the
Director of Public Instruction,
19*th September* 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. Giles,
Director of Public Instruction.

No. 4321 of 1898-99.

Poona, Office of the Director
of Public Instruction,
4th October 1898.

Secondary Schools.

Recent Developments of School Apparatus and Literature.

In continuation of this office notice published in the 3rd* number of the Educational Record and Literary Journal the undersigned invites the attention of all Managers of Secondary Schools in the Bombay Presidency to the facilities which now exist in Bombay for obtaining all the most recent developments of school Apparatus and Literature.

2. A list of new school books and apparatus received in this office and sent to the Educational Museum and Library, attached to the Elphinstone Middle School Bombay, is published every month in the Educational Record and Literary Journal. The Educational Museum and Library is amply stocked with scholastic apparatus of all kinds, and additions to it are constantly being made.

3. The undersigned does not wish in any way to dictate to the Head Masters of Secondary Schools whether Government, aided or unaided, either as to the books that should be read or the apparatus that should be used in schools, but would point out that while selection is left to Managers, it is obviously desirable that schools should be

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* For September 1898.

abreast of the times, and that managers should avail themselves of the facilities which exist to supply their schools with modern accessories of all kinds.

Poona, dated
4th October 1898.
E. GILES,
Director of Public Instruction.

The subjoined Government Resolution Financial Department No. 4347, dated the 22nd September 1898, is published for the information and guidance of Educational officers.

Poona,
5th October 1898.
E. GILES,
Director of Public Instruction.

Pensions.

Orders of the Secretary of State as to the grant of special pension in addition to pension admissible under the rules and of bonus payable in England.

No. 4347.

FINANCIAL DEPARTMENT.

Bombay Castle, 22nd September 1898.

Resolution of the Government of India, Finance and Commerce Department, No. 3842-P., dated 1st September 1898:—

"Read again—

Resolution in this Department No. 322-P., dated 22nd January 1896, circulating certain instructions issued by the Secretary of State from time to time in regard to the grant of special additional pensions in excess of the maximum of Rs. 5,000 a year ordinarily admissible under rule.

Read also—

Despatch from Her Majesty's Secretary of State for India, No. 121 (Financial), dated 7th July 1898.

ORDERED that extract, paragraphs 2 to 4, from the despatch of 7th July 1898 be forwarded to all local Governments and Administrations, to all Departments of the Government of India, and to all Heads of Departments subordinate to this Department, for information and guidance, in continuation of the Resolution No. 322-P., dated 22nd January 1896, read above."

RESOLUTION.—Copies of the Resolution of the Government of India should be forwarded to all Departments of the Secretariat and all Heads of Offices for information in continuation of Government Resolution No. 645, dated 17th February 1896.

H. S. LAWRENCE,
Under Secretary to Government.

Extract paragraphs 2 *to* 4, *from a Despatch, from Her Majesty's Secretary of State for India, No.* 121 (*Financial*), *dated 7th July* 1898.

2. In my despatch of the 7th of October 1897, No. 166, I expressed my sense of the great value of the services of * * *. Without entering upon any comparison between his services and those of other officers to whom special grants may have been made, I understand your Excellency to recognise the objections which exist to the grant of a pension in excess of that laid down by the Rules, and which appear to me to have great weight. In England the scale of superannuation is prescribed by Act of Parliament, and cannot be exceeded, and, without going so far as to say that the Indian Regulations must be held to be equally absolute, I am of opinion that departures from them should be extremely rare, and should only be permitted when the service is of a nature not ordinarily falling within the duty that may be expected from an officer who has been promoted to the highest position in his Department.

3. The grant of a bonus has been allowed in certain cases, when paid in India, as a mode of reducing the sterling payments. If issued in England, it loses that character, and ceases to be of any advantage to the Government as an alternative mode of rewarding an officer on retirement.

4. Having given full consideration to your Excellency's recommendation, I am reluctantly forced again to decline to sanction the proposal; and I request that, in future, the ordinary pension of Rs. 5,000, and the special additional pension of Rs. 1,000 in such circumstances as are covered by the last paragraph of Sir Henry Fowler's Despatch of 11th April 1895, No. 59, may be held to be the highest amounts to be awarded, unless under wholly exceptional conditions.

The subjoined Government Resolution, Financial Department, No. 4486, dated 30th September 1898, and Government Circular Financial Department, No. 1953 of

22nd June 1888, are published for the information and guidance of Educational officers.

Poona, *8th October* 1898. E. GILES,
Director of Public Instruction.

Misappropriation or loss of public money.

Instructions regarding the prompt report of—to the Accountant General.

No. 4486.

FINANCIAL DEPARTMENT.

Bombay Castle, 30th September 1898.

Letter from the Accountant General, No. T. A. M.—15420, dated 15th August 1898:—

> "I have the honour to report that some instances have recently come to my notice in which cases of loss or misappropriation of public money have not been promptly reported to this office, as required by Article 20, Civil Account Code. In two cases also, that dealt with in Government Resolution, Revenue Department, No. 3859, dated the 9th June 1898, and that disposed of by the High Court (Imperatrix *vs.* Dáji Náráyan—Parsons and Ránade, Justices—and reported in the daily papers of the 3rd August 1898), no reports were made to my office.
>
> "2. I would therefore suggest the advisability of bringing the rule to the particular notice of all heads of offices."

RESOLUTION.—The attention of all Heads of Offices should be invited to Government Circular No. 1953,* dated 22nd June 1888, and they should be requested to be particularly careful to report promptly to the Accountant General all cases resulting in a loss or misappropriation of public money.

2. Extract paragraph 1 of the Accountant General's letter should be forwarded to the Judicial Department for such action as may be necessary with reference to the second of the two cases mentioned in that paragraph.

H. S. L[illegible]ERNCE,
Under Secretary to Government.

CIRCULAR.

No. 1953 OF 1888.

FINANCIAL DEPARTMENT.

Bombay Castle, 22nd June 1888.

As several instances have recently occurred in which the embezzlement of public money has not been immediately brought to the notice of the Accountant General as required by Rule 7, Chapter 32 of the Civil Account Code, and in which the loss of public money would have been avoided if the rules of the Code had been properly followed, the Governor in Council desires to call the attention of Heads of Offices to the rules and standing orders in regard to the exercise of strict supervision over the recovery and payment into the Treasury of Government dues and to the proper entry in the Government accounts of such transactions. The Governor in Council would point out that officers render themselves personally liable for losses resulting from their neglect of orders. All cases of fraud resulting in loss of public money, howsoever trifling may be the amount or whatever may be the mode in which the fraud is committed, should be promptly reported to the proper authorities.

(Signed) J. NUGENT,
Chief Secretary to Government.

The subjoined Government Resolution No. 4457 (Financial Department), dated the 29th September 1898, is published for the information and guidance of Educational Officers.

Poona, 12*th October* 1898. E. GILES,
Director of Public Instruction.

Locks.

No. 4457.

FINANCIAL DEPARTMENT.

Bombay Castle, 29th September 1898.

Letter from the Superintendent of Stationery, No. 3866, dated 19th September 1898—Submitting copy of the following letter No. 258, dated 7th idem, from Mr. R. H. Pátuck, Sole Agent, Pioneer Lock Works:—

> "I have the honour to bring to your notice that we have now made a speciality of turning out to specifications master-key sets of strong reliable padlocks, drawer-locks, box-locks, &c., each lock having a non-interchangeable key of its own, and a master-key to pass all the locks in the particular set, also sets of locks of equally superior make having interchangeable keys. Of course keys of one such interchangeable set won't pass any lock of other sets, but will be good for the particular set only. Any number of locks could be made to these sets. These master-key sets are very much appreciated by jails and other institutions, and I think will be found very useful in the several Government departments, if the facts are

brought to the notice of the Heads of the Departments, &c."

the Superintendent of Stationery requesting that the Agent's letter may be communicated to Heads of Offices and Departments in continuation of Government Resolution No. 1558, dated 14th May 1895.

RESOLUTION.—Copies of the letter from the Agent, Pioneer Lock Works, should be forwarded to all Departments of the Secretariat and all Heads of Offices for information in continuation of Government Resolution No. 1558, dated 14th May 1895.

H. S. LAWRENCE,
Under Secretary to Government.

The subjoined Government Resolution, Educational Department, No. 1257 of 5th October 1898, is published for the information and guidance of Educational Officers.

Poona,
14th October 1898.

E. GILES,
Director of Public Instruction.

Publications.—
Purchase of Dr. Thomson's book on Manual Training by Educational Officers.

No. 1257.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 5th October 1898.

Letter from the Director of Public Instruction, No. 3449, dated the 29th August 1898.

"I have the honour to state that the Third Assistant Deputy Inspector, Shikárpur, has purchased a copy of Dr. Thomson's book on Manual Training* from his contract grant. The Accountant General has objected to the purchase, and I request that Government will accord a general sanction to the purchase of the book by Educational Officers.

"2. It is especially necessary that Inspecting Officers should possess the book, as they have to examine industrial and technical schools."

Letter from the Director of Public Instruction, No. 4094 dated the 24th September 1898.

"With reference to your No. 1107†, dated the 5th instant, I have the honour to report that the price of Dr. Thomson's book on Manual Training is annas 8 only. A copy of the book is forwarded by book-post. It will be seen that it has been published by the Department."

* Published departmentally in this country.

† Returned herewith with accompaniment.

RESOLUTION.—The purchase of the book by Educational Officers is sanctioned, the charge being met as proposed by the Director of Public Instruction.

R. B. STEWART,
Acting Secretary to Government.

To
The Director of Public Instruction,
The Accountant General, Bombay,
The Financial Department of the Secretariat.

The subjoined Government Resolution, Public Works Department, No. 172 C. W.—1512 of the 5th October 1898, is published for the information and guidance of Educational Officers.

Poona,
18th October 1898.
E. GILES,
Director of Public Instruction.

Health Camps in Bombay erected by the Bombay Municipality—
Orders on the occupation by servants of Government, free of rent, of the.

No. 172 C. W.—1512 OF 1898.

PUBLIC WORKS DEPARTMENT.

Bombay Castle, 5th October 1898.

Letter to the Municipal Commissioner for the City of Bombay, No. 566B, dated 19th September 1898, as under:—

> "I am directed to state that rent has been demanded from two peons of this Department for the huts occupied by them in the Health Camp built by the Bombay Municipality at Dongri. In consideration of the fact that Government have charged no rent for their land used by the Municipality for Plague purposes, and as it is of great importance that every precaution should be taken to prevent peons living near infected quarters I am to suggest for your consideration that lowly paid Government servants, such as peons, etc., may be permitted to use the huts in the Health Camp rent free."

Letter from the Deputy Commissioner, Plague Operations, Bombay, No. 16698, dated 28th September 1898, as under:—

> "With reference to your No. 566B. of the 19th instant, I have the honour to state that I have decided that no rent should be charged to Government servants occupying Municipal Camps on their producing satisfactory evidence that they are Government servants and have issued instructions accordingly.

> It must, however, be understood that the Camps having been put up for Plague purposes Government servants occupying them will have to quit them if they are required for other people."

RESOLUTION.—To be communicated to the Departments and officers concerned for information and guidance.

E. O. MAWSON,
Under Secretary to Government.

Notice.

Attention is drawn to the changes made in Schedule B attached to Government Notification No. 107, dated 16th January 1895, publishing rules for regulating the admission of candidates into the lower grades of the Public Service. According to the Revised Schedule published in Government Resolution, Educational Department, No. 805, dated 11th July 1898, and amended in *Government Gazette* No. 934, of 5th August 1898, at page 720, Part I., Schedule B, Scheme 2, heading (1) now runs:—

(1) Arithmetic, complete, and native accounts.
Euclid Book I.

Heading (2) now runs:—

(2) Reading and explaining the prose pieces in the highest reading book (Marathi, Gujarathi, Kanarese or Sindhi).
Grammar, complete.
Recitation with explanation of 300 lines of poetry.
Reading fluently any fair official manuscripts (Marathi, Gujarathi, Canarese or Sindhi).

Poona, Office of the Educational Inspector, C. D., 28th October 1898.

R. D. PRIOR,
Educational Inspector, C. D.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY (NEXT TO THE SMALL CAUSES COURT).

1. The following new books and fresh additions are now available in the Library.

2. The Library and Museum are open to the public every Saturday, from 7 to 11 A.M. (Bombay Time), and on other days by arrangement with the Curator.

3. See notice on *Record* for February 1887, p. 44.

Poona, } R. D. PRIOR,
28th October 1898. } Educational Inspector, C. D.

Author.	Title of Work.	Publisher.	Price.
	Class 6 :—Arithmetic.		Rs. a. p.
Bernard Smith and Hudson.	Arithmetic for India (2 coptes).	Macmillan & Co.	2 0 0
Pendlebury and Beard.	Commercial Arithmetic (2 copies).	George Bell & Sons.	£ sh. d. 0 2 6
	Class 10A :—Catalogue of Books, &c.		
	The Book-Seller for September 1898.	Whitaker & Sons.	0 0 6
	Class 11 :—Chemistry.		Rs. a. p.
K. F. Daruvala, B.A.	A Text-Book of Chemistry for Matriculation.	J. Langley & Co.	0 13 0
	Class 24 :—English Grammar, &c.		£ sh. d.
	Longmans' Grammar and Composition.	Longmans, Green & Co.	0 1 6
M. W. Jennings.	English Grammar	Do. ..	0 1 8
Macmillan and Hakim.	Handbook of English Grammar and Composition (2 copies).	Macmillan & Co.	Rs. a. p. 2 8 0
Rowe and Webb.	Hints on the Study of English (2 copies).	Do. ..	2 8 0
	Class 42 :—Latin.		£ sh. d.
	P. Ovidi Nas-onis Opera, Vol. I.	George Bell & Sons.	0 2 0
	„ „ Vol. II.	Do. ...	0 2 0
	„ „ Vol. III.	Do. ...	0 2 0

List of appointments in the Education Department from the 16*th September to the* 15*th October* 1898.

30*th September* 1898.—Mr. G. F. Halkatti, 8th clerk, Educational Inspector, Southern Division, is appointed head clerk to the Deputy Educational Inspector, Dharwar Sub-Division.

Mr. B. N. Hallikeri, clerk, Training College, Dharwar, in appointed 8th clerk in the office of the Educational Inspector, Southern Division.

Mr. G. L. Gambhir, 3rd clerk, Deputy Educational Inspector, Dharwar, is appointed clerk, Training College, Dharwar.

Kalka Parsad Tikaram, gymnastic teacher of the Shikarpur High School, is confirmed in his post.

Mr. R. K. Bhide is appointed herbarium keeper in the College of Science, Poona, on probation.

1st October 1898.—Mr. B. K. Damle, B.A., 4th assistant, Ratnagiri High School, is appointed 3rd assistant, Garud High School, Dhulia, *vice* Mr. D. B. Deshpande, retiring.

10th October.—The following appointments are sanctioned:—

Mr. C. V. Patel, B.A., 2nd assistant, Nariad High School, and *sub. pro tem.* 3rd assistant, Surat High School, to be 3rd assistant in the Surat High School.

Mr. H. B. Dave, B.A., 3rd assistant and *sub. pro tem.* 2nd assistant, Nariad High School, to be 2nd assistant in the same school.

Mr. H. F. Bhat, B.A., 9th assistant, Surat High School, and *sub. pro tem.* Librarian and Superintendent of Resident students, Elphinstone College, to be 3rd assistant, Nariad High School, but to continue in the Elphinstone College.

Mr. B. K. Agarvala, B.A., 5th assistant, Broach High School, and *sub. pro tem.* 9th assistant, Surat High School, to be 9th assistant in the Surat High School.

Mr. M. A. Pandya, 10th assistant, Surat High School, and *sub. pro tem.* 4th assistant Nariad High School, to be 5th assistant, Broach High School, but to continue *sub. pro tem.* in the Nariad High School, until further order.,

Mr. F. D. Mehta, B. A., 11th assistant and *sub. pro tem.* 8th assistant, Surat High School, to be 10th assistant in the same school and to continue *sub. pro tem.* 8th assistant, Surat High School, until further orders.

Mr. J. P. Shroff, B.A., *sub. pro tem.* 1st assistants Telang High School, Godhra, to be 11th assistant, Surat High School, but to continue *sub. pro tem.* 1st assistant Godhra High School, until further orders.

12th October 1898.—Mr. G. V. Javdekar, B. Sc., 5th assistant Ratnagiri High School, is appointed 4th assistant in the same school *vice* Mr. B. K. Damle, transferred.

14th October 1898.—Mr. R. K. Karnik is confirmed as 19th assistant in the N. J. High School, Karachi.

15th October 1898.—The following appointments are made in the Surat Middle School.

Mr. J. H. Bhat, 6th assistant and acting 4th assistant, to be 4th assistant *vice* Mr. B. D. Patel, deceased.

Mr. B. K. Jani, 7th assistant, to be 6th assistant.

Mr. R. V. Desai, *sub. pro tem.* 3rd assistant, Telang High School, Godhra, to be 7th assistant, but to continue *sub. pro tem.* 3rd assistant, Telang High School, Godhra, until further orders.

Poona, Office of the
Director of Public Instruction,
21st October 1898.

E. GILES,
Director of Public
Instruction.

SUPPLEMENT TO

The Bombay Educational Record And Literary Journal.

Vol. XXXI.] NOVEMBER 1898. [No. 5.

Price As. 4. Free to Subscribers,

The Poona Industrial Association.

LECTURE BY MR. KAIKHUSHRU TALATI.

THERE was a large meeting of the Poona Industrial Association in the Hall of the Poona Native General Library on 13th September 1898.

Dr. Bhandarkar, in opening the proceedings, gave a short account of the aims and objects of the Association under whose auspices the lecture was to be given, and proposed the Hon'ble Mr. Giles to the Chair. Rao Bahadur Dandekar seconded the proposal, and Sirdar K. B. Dorabji Padumji supported it.

In the course of his speech, Dr. Bhandarkar said:

LADIES AND GENTLEMEN,—I beg to propose that the Hon. Mr. Giles take the chair on the present occasion. It is but fitting that the Director of Public Instruction should preside when an address on an educational subject is being delivered. This meeting has been arranged under the auspices of the Association established about two years ago for the promotion of education in the industrial arts indigenous to the country, and in the arts and processes practised in foreign countries, the products of which are in great demand in India. As regards the first branch, it may be urged that the means of education already exist. A carpenter, for example, teaches carpentry to his son, and a stonemason, his own art to his son. No special arrangements therefore are necessary for teaching arts such as these. But it often happens that the trade of the father is overstocked, and it becomes necessary for a son to earn his livelihood by pursuing some other occupation than that of his father. A goldsmith's son may not find it remunerative to practise the art of making ornaments, or that of a tailor, that of making shirts and coats. And if we generally look to the social history of the country, we shall find that the castes following certain occupations found it necessary in the course of time to follow some other occupation. The Brahmans, whose occupation originally was priesthood, found it necessary subsequently to change it for that of the warrior or of the writer; and the Kshatriya to change his for that of the weaver. And such a change of hereditary occupation is necessitated also by the peculiar mental bent of son, as wel as by the fact of the father's occupation being overstocked. Thus, then, it now happens that there is hardly any trade-caste which has kept entirely to its original occupation. It will thus be seen, since the system of apprenticing does not exist in the country, that special arrangements are required for giving instruction in the industrial arts. At present, the only new occupation that a person may qualify himself for is that of a writer, since there are Government institutions in all parts of the country for giving literary education; so that you will find the sons of goldsmiths, tailors, carpenters, and others giving up their hereditary occupations and becoming clerks. And consequently that field also is now so overstocked as to become the source of evil. There ought, therefore, to be some means somewhere of educating young men in other arts, as well as in that of a writer. And, if these come into existence, there will be such a wide field for choice that the talent best fitted for a certain trade will be attracted to it. Even Brahmans, who possess intelligence in a comparatively large measure, will take to the occupations of carpentry, masonry, and others, as they have begun to do, and the quality of the work turned out must in the long run improve. Now, as regards the second branch, improved processes practised in foreign countries have driven out the products of the indigenous arts from the market, and a very large demand has sprung up for the products of other arts unknown in this country. The result is, that this country is becoming every year more and more dependent on foreign countries for even goods in ordinary use; our trades and manufactures are declining; and India is fast becoming a merely agricultural country. Such a state of things cannot but bring periodical misery in its train; for agriculture depends upon rain, rain is uncertain, and whenever there is a drought, scarcity and famine afflict a country. The evils of a famine, gentlemen, we have but recently witnessed. These evils must go on increasing as India becomes more and more an agricultural country. To avert all these results, so far as it lies in our humble powers, is the object of our Association. Our idea is to send out our young men to foreign countries to learn the arts and processes practised there and to provide instruction in the indigenous arts in this country. We Marathas are clever in conceiving things, but do not possess the means of carrying our conceptions into effect. It is, therefore, necessary that the rich merchants of Bombay and other places, and the native princes and chiefs, should be appealed to and their sympathies enlisted in favour of the cause. As soon as the Association was organised, plague broke out in a virulent form in Bombay, Poona, and other places, and paralysed our efforts, as those of many others; but, our energetic Secretary, Mr. Prabhakar Lakshman Nagpurker, has made up his mind to devote his whole life to the promotion of this object, and I have no doubt that by his endeavours we shall in time be able to shew some tangible results.

The Hon'ble Mr. Giles, on taking the chair, amid loud cheers, introduced the lecturer to the audience and called on him to begin.

Mr. Talati, then, ascended the platform amidst ringing cheers and spoke for about an hour, during which the audience listened to him with great attention and showed their approbation by constant applause. In the course of his lecture, Mr. Talati said:—

MR. GILES, LADIES, and GENTLEMEN, and my dear young friends.—We meet under very auspicious circumstances. The Head of the Education Department, who, as you all know, takes a deep interest in every branch of education, has honoured us with his presence here to-day; you, ladies and gentlemen, many of whom must now be thinking of what to do with your "boys," are present in such large numbers, and the rising generation, our "boys," for whose welfare we have been working, are also present. I trust that the gathering which has met under such circumstances will be productive of good.

The question which we have met here to discuss is a very important one—deserving of great consideration and much discussion. I have been agitating it in Gujarat and in Gujarati newspapers for more than two years. In April 1896, I wrote two long letters to the *Jam-e-Jamshed*, an influential Gujarati daily, describing generally the advantages to this country of developing its industrial resources and giving practical hints and cautions, which are the results of my own experience. These letters reprinted at my own expense and distributed amongst my friends. I have now been engaged in writing letters to the same paper giving detailed information regarding particular industries—where they can be learned how they can be learnt, where the raw materials can be had, what books should be studied, and other useful information. I have already written four letters. and the series will be continued. I have also lectured on the same subject at Ahmedabad, Rajkote, and Bhavnagar in Gujarat, and now I have come to the Deccan for the same purpose. I propose to lecture wherever I go or wherever I may be invited to go.

Some years ago, there was no necessity for asking such a question: every one that received an English education got work; even "Copy to copy and *makhi* to *makhi*" men were employed. You all know that "*makhi*" in Hindustani means a fly. One day an illiterate clerk was asked to copy a letter. The original letter had a dead fly on it; this clerk thought that it formed part of the letter; so, he killed a fly and stuck it on to the letter When he took the letter to the Saheb, he asked him what he had done; and he replied, "Saheb, copy to copy and *makhi* to *makhi*." Even such men, I say, got employment. I remember the time when the Baroda Railway was opened. At that time, every one who could read and write English got employment, and the schools were almost emptied.

But now unfortunately the time is come when every one has to ask the question, "What to do with our boys?" For one vacancy there are 100 applications, 25 of them backed by letters of recommendation. I have seen permanent boards in some offices, "———has no vacancy in any of his departments," meaning, of course, "None need apply." Then the question arises, "What should we do?"

But before we answer the question, let us see what we have been doing. Nowadays every one receives an English education, every one, including sons of *mochees* (shoe-makers), *dhobis* (washermen), and even *hajams* (barbers). Well, it is not a bad thing for all these to receive eduction. But what do these sons of *mochees dhobis*, and *hajams* do after receiving education? Why, they want to be clerks, karkoons (native writers), and ticket collectors. My opinion is that if they take up their fathers' calling, they will do better work, and will certainly earn more than their fathers, and also much more than if they were karkoons, clerks, or ticket collectors. I know an instance of a *hajam's* son, who, after receiving a little education, wanted to be a karkoon. Well, through the influence of his father's customers, he did get a karkoonship, and he believed he was the happiest man in the world. But, he soon found that a karkoonship was not *summum bonum*" the greatest happiness. He had to work with high-caste Hindus, who would not tolerate a *hajam* amongst them, and he was very much ill-treated; further, he did not get promotion for a long time. Then, he found that his father's calling would certainly be better than a karkoonship, so he took up the razor, and is certainly now a happier man. Having been educated, he keeps good instruments, has a light hand, and does his work well. But, above all, his education has taught him punctuality, which quality, as every one in this country knows, is wanting in our artisans. He keeps a pocket note-book. If one asks him to come to him at 7 o'clock, he makes an entry in his note-book, and if another customer wants him at the same time, he says, "No, Sir,—I have to go to Mr.——— at 7. I shall come to you 10 minutes after.' On this account he gets a good deal of work, and all well-to-do people send for him. So, he is now more respected, at any rate, is more sought after, and certainly earns more than he did when he was a karkoon.

I therefore advise every one of the sons of artisans to take up their fathers' calling after receiving a little education.

But, this is what people with only a slight education are doing. Now, let us see how people with higher and more liberal education fare. I remember the time when M. As. got Deputy Collectorships, and B. As. Mamlatdarships at once. Now B.As. accept karkoons' places in Mamlatdars' kutcheries on Rs. 20. Surely, this is not a suitable remuneration for those who study hard for at least four years after the matriculation. Many of them, therefore, study Law and prepare for the LL.B. examination. I am quite sure there are some pleaders among my audience here, and they will excuse me if I say that their profession is overcrowded, and would I dissuade others from joining it. They will admit that they are not earning as much as the past generation of pleaders did, nor will they continue to earn even as much as they earn now if pleaders continue to be manufactured at the present rate (fifty LL.Bs. a year). There is a higher class of legal practitioner—the solicitors.—In their line, too, there is a good deal of overcrowding, and yet there are at present more than one hundred articled clerks; what these articled clerks will do when they pass out as solicitors is a problem to me.

Some of the natives go to England, and return as barristers. Some of these barristers earn a decent living, it is true, but there are many who do not earn enough to keep up their position, and yet we read of some going to England every mail to be called to the bar. They do not think of how they will fare when they return and join the already overcrowded profession.

Let us take another overcrowded profession—The Medical. In Bombay some years ago there was a Doctor's board in every street, and then it was said that there were too many—but now there are more boards than one in each street. The Medical profession is a useful and noble one. But men do not become doctors only to be useful or for the sake of the nobleness of the profession. They must earn enough to maintain themselves decently, and I am afraid the time has come when many doctors do not earn enough to live with any comfort.

When these professions are overcrowded it is high time that educated persons should think of other sources of income, and hence arises the question, "What is to be done?"

My answer is that some at least of these educated persons should turn their attention to industries. They should use their learning for the purpose of developing the material resources of the country, of reviving old industries and of introducing new ones into the country. Remember, I do not say that people should not receive higher education. I say, by all means receive as high an education as you can ; go up to the matriculation examination at least. I also advise you to study the Natural Sciences, particularly chemistry and physics. They form the basis of all industries. Then again, do not misunderstand me. I do not say, "No one should be a pleader, a solicitor, a barrister or a doctor." The world, under present circumstances, cannot go on without them : they too are useful in their way. But what I say is, that *all* educated persons should not join these already overcrowded professions; but some of them at least should think of taking up industries.

Let us for a moment consider how helpless we are as regards industries. We are dependent on foreign countries for everything we want—"from a pin to an anchor." We cannot dress or finish our own raw materials. We send them to foreign countries to be dressed, and finished, and sent back to us. Take only one example. Bombay alone exports to London nearly ten lakhs of skins and hides every six weeks; and there are many ports in India besides Bombay from which skins and hides are exported. And this is the case with innumerable raw materials. Is it not a pity that we cannot dress and finish these raw materials here in our own country.

Everybody is aware of the advantages to a country of industrial development. Everybody also admits the necessity of it for India. We frequently complain of our wealth being taken away by foreigners through trade, but we forget that the remedy is in our own hands. Let us work up our own raw materials and prevent their being sent over to foreign countries. If we dress them here, not only will this export of our raw materials be stopped, but if we produce more than we can use in our own country we shall be able to send prepared and finished goods to other countries. Thus, not only shall we prevent the drain of our wealth, but we shall get the wealth of other countries.

There is yet another advantage. It is said that he who makes two blades grow where only one used to grow is a benefactor to the country. Now a manufacturer is in this sense a benefactor to his country because he can turn raw material worth one pice into an article worth two pice, or, sometimes, as much as a rupee.

But the greatest advantage particularly in India is that of reducing the miseries of famine. At present a large percentage of our population depends on agriculture, so when crops fail they do not get food, and as they have no other work they suffer much. If we have factories, a part of the population will have work, whether there be rain or no rain; and crops or no crops. Thus though there be famine in the country sufferings will not be so general as it is at present.

We are all talking of the regeneration of India and various individuals and bodies suggest various means, but I am convinced that the regeneration of India depends chiefly on the development of the material resources of the country.

Let us now take instances of those countries which are rich and prosperous through their industries, and first and foremost England will draw our attention. It is the richest country in the world. Bear in mind that it is so not on account of its vast empire but simply on account of its vast coal and iron mines, and the industries that are supported by the products of these mines. Remove the industries, and even if it has the empire, it will not be either rich or prosperous.

Take another instance, Germany. "Made in Germany" has now become proverbial. It is not generally known that Raphael Tuck's excellent cards, though designed in England, are printed in Germany. I once went to Hastings and saw articles with "A present from Hastings" painted on them. When I lifted them up I was surprised to read that they were "made in Germany." A present from Hastings" "made in Germany ! ! ! "

Now take the instance of a country in our own hemisphere Japan. It was a semi-barbarous country only a quarter of a century ago, while now it is one of the foremost countries in point of industrial activity. I am told it has men-of-war; telegraph, and railways all worked by Japanese. We know that it exports to our own country umbrellas in large quantities, and matches, so that in fact Japan matches have driven other foreign matches from our markets. We are to take a serious lesson from this. If the Japanese, who are certainly not superior to us in intelligence, can do this, why can we not do the same?

But why go so far. Let us take the example of the city where I come from—Ahmedabad. It is one of the richest and the most prosperous cities in India and that is entirely owing to its manufactures. It is, in my opinion, the most enterprising city in the whole of India, not excepting even Bombay. It can show a variety of manufactures which is not to be found in any city it has at present—

30 Mills.
1 Metal factory.
1 Glass factory.
1 Match factory.
1 Pottery factory.
1 Bobbin factory.
1 Canvas hose, belt and wick factory.
2 Carpet factories.
1 Ice factory.

Many paper factories according to the old style. (The old Sahibkhani paper for native account books is made in Ahmedabad alone).

Many leather factories in the old style. (All the red covers of our native account books are made at Ahmedabad.)

1 Leather dressing factory.
1 Rice-pounding factory.
2 Flour mills.
2 Iron foundries.
1 Dyeing factory with steam power.

If Ahmedabad has advanced so much in point of manufactures there is no reason why Poona cannot. The inhabitants of Poona are certainly as intelligent as those of Ahmedabad, if not more so, and there is enough of money at Poona. Though there be very few millionaires at Poona yet there are people who can spare thousands of rupees, if not lakhs, and for big concerns millionaires are not required, but many persons able to pay thousands or hundreds. The people of Poona should, therefore, wake up and start such manufactures as the Ahmedabadis have done.

Industries do good not only to the country in general, but also to the individuals engaged in them. In the first place, a manufacturer is more independent than a servant. Service is among us considered low; the term for it is કનીષ્ટ (lowest). Secondly, an industry is more lucrative than service; we have not heard of a man having grown rich through service; all the wealth that we have heard of has been made either through commerce or manufacture. But the greatest advantage of following an industry is the opportunity it affords us of giving employment to others. Even a small factory can give employment to ten persons, and amongst us natives of India, giving employment, or "bread" as we call it, is highly meritorious in the eyes of God, and this meritorious act, industries enable us to perform.

I have now to give a few cautions to those who may desire to engage in industries. These cautions are not given to discourage you, but to cheer you up, if ever you happen to be discouraged.

The first caution that I give is, while learning an industry, and for some time after learning it till you settle down in life, give up pleasure. In Bombay, and in our part of the country, it is a rule with young men, (I do not know how it is here), to dress themselves in fine clothes in the evenings, to take stick in hand, go for a walk to the Bandstand, and after that, to restaurants and ice-cream shops. I say you will have to forget all that while learning an industry. You will have to go to your factory very early in the morning and return very late in the evening. But I may assure you that there will be enough of reward when once you settle down.

The second caution is have patience and perseverance. You should be prepared to meet with failure, and if you fail several times do not be disheartened. The industries which I recommend to you are, most of them, new ones, of which very little will be found in books, and the greater part of what may be found will be useless on account of difference in climate and circumstances. There will be no teacher to teach you. You will have to learn it yourselves, and that by experiment, all of which will not succeed at the first attempt. You will have to try, try, and try, and waste materials and re-agents until you succeed; for this, an amount of patience and perseverance will be required. But I may assure you that you will succeed in the end.

Another caution that I give to you is do not consider yourselves above your business. In every industry there are always discomforts. These must be borne. If, after selecting an industry, you think it is too low for you, you will not succeed in it. You must take it up heartily or give it up altogether.

There are certain persons who consider certain callings too low for them. To them I say, "Remember the following two lines of a great poet."

> "Honour and shame from no condition rise;
> Act well your part; there all the honour lies."

The reputation of a man does not depend upon what profession he follows but on how he carries on that profession. I may quote here a saying of Colonel Hunter, Political Agent, Kattyawar, who presided at my lecture on this subject at Rajkote. He said that "A good mochee is a more useful member of society than a bad Diwan (Minister)."

The last, and perhaps the most important caution that I give to my young friends is, be prepared to tuck up your sleeves and take off your coats and work with your own hands. Amongst us there are false ideas about work: we do not understand the "dignity of labour." We think it low to work with our hands, and therefore those occupations which require manual work are considered low among us. I trust that you, young men, who are hearing me now, will not consider it below your dignity to use your own hands. There are various reasons why you should work with your own hands. First, there are many trade secrets which should not be known to your workmen. They should not know what ingredients you use, in what proportion you use them, or how they are to be prepared. You cannot keep all these secrets unless you work with your own hands. Secondly, if you work with your own hands, you know how much each workman should do in a day, and so the workmen cannot deceive you; but if these workmen come to know that you do not know the work, they will take more time to do the work than they should. Then, again, if you know your work you will not be at the mercy of your workmen. In Bombay there are many "tailoring establishments," but I can safely say that most of the owners of these establishments do not know cutting or sewing, so if the cutter or tailor be absent, or, as is very often the case with these men, a little the worse for drink, the work is altogether stopped and customers are dissatisfied. But if they knew their work they would immediately take up a pair of scissors and cut the cloth or get at a sewing machine and sew up a garment, and thus they would not be at the mercy of their men.

All these cautions are the result of my own experience, because I am not like the proverbial Kajiji, who will not practise what he preaches You will therefore excuse a little egotism if I give a short account of what I have done. From my experience of our educational system and its results, and from the difficulty which my pupils found in obtaining suitable employment, I came to the conclusion about ten years ago, that we should direct our attention to something else than Government service or the learned professions. At that time my son was about sixteen years of age and preparing for the Matriculation examination. I said to myself that before advising others to do a thing, I should do it myself. I therefore decided to teach my son an industry. Then I thought about what industry I should teach him. I was at that time in Karachi and had lived there a long time. I had seen steamer-loads of skins and hides being exported. It occurred to me that I should teach my son how to tan and dress these skins and hides, and I so decided. About that time he passed his Matriculation Examination, and we commenced the study of the subject. At that time we did not know what books there were on the subject, so we commenced with Chemistry applied to practice, and studied the article on "Leather." A short time after I went to England and sent him a book on Leather manufacture. My family after my departure for England removed to Bombay, and my son went as an apprentice to a firm of Tanners, "Messrs. Mancherji Shapurji & Co.," who very kindly allowed him free access to all parts of their factory. I may state here that this was very unusual because in Bombay strangers are not allowed to know the secrets of tanning. In this tannery my son learned the practical part of tanning. He went there early in the morning and returned late at night; his breakfast was sent to him by a servant. Thus he had no enjoyment, no pleasure and no evening walks. This is the reason why I give the first caution, "Do not think of pleasure."

While learning the practical part of tanning, he studied the theory of it from books and appeared for the examination in that subject held by the City and Guilds of London Institute and passed it in 189 . I believe I am right in saying that he is the only one in India who has passed such an examination.

After learning tanning we wanted to go further. We said to ourselves "Tanning is done by ordinary uneducated people—we must do something further." So we commenced dressing, and in this we found immense difficulties. There was not much in the books regarding the subject, and much of what little there was, was found to be unsuitable to our climate, so we had to teach ourselves, and we wasted raw materials and reagents, and went on experimenting, meeting with frequent failures, but still persevering. Sometimes the failures were so frequent and successive that my son lost heart, but I cheered him on, and I am glad to say that after 8 years of anxious days and nights, after spending all the savings of my life, we have succeeded in making no less than ten different varieties of dressed skins and hides. These were exhibited to you at the beginning of the lecture, only to show you what patience and perseverance can accomplish. Hence the second caution: "Have patience and perseverance." I must not omit to mention here, that we had outside aid from one gentleman at any rate—Mr. Procter, who is now Professor of Tanning in Yorkshire College Leeds. Whenever we failed in our experiments we wrote to him, and that gentleman most willingly gave us advice which proved very valuable. After finishing our articles we gave them over to our friends to be tried and tested. Of these friends, Mr. Dossabhai Mullan, of the Savadeshi Mills; Mr. Bejanji Dadabhai Mehta, of the Nagpur Mills; and the well-known coach-builder of Frere Road, Bombay, Mr. Pestonji Press, deserve special mention. They not only tried and tested our skins with care, but gave us valuable instructions for the improvement of our articles.

One day a friend of mine asked me what my son was doing. When I told him that he had been attending a tanning factory, and when I explained to him the bright prospects in that line, he wished his son also to learn the art. I asked the permission of the masters of the Factory, and they very kindly consented, and the young man went to the factory. You know that tanneries, particularly those in our country, are dirty. So this young man refused to go there the next day, saying he would not do "such dirty work."

While I was at Bombay as Vice-Principal I asked a sepoy of mine to get from among his relations a man for my son's shop. He knew what the work in the shop was, so he said, "No, we never touch leather." I was really surprised to hear that. The Vice-Principal's son would touch leather, and do all the work connected with it, but the Vice-Principals sepoy's relations would not. Hence it is that I have given the third caution. Do not consider any work low. Do not consider yourself above any kind of honest work.

The last piece of advice that I have given you is that you should be prepared to do work with your own hands. My son does the same, and our success is mainly owing to this fact. There are solutions which must be kept secret, so he prepares them himself. He sometimes comes homes with fingers as dirty as those of a dyer. He knows how much each man should do, so the workmen cannot deceive him. He also knows every detail of his work, so he can train up new men when old men leave him or are ill. He has not to stop work if trained men are absent. In his factory he puts on his apron. Even when Mr. Lely visited our factory, he put it on.

We had thus our difficulties, and by dint of patience and perseverance we have overcome them. But I may assure my young friends that they will not now find such difficulties. When we commenced the study [illegible] our art we did not know what [illegible] were on the subject. But now [illegible] can find books of reference for 66 industries given in the programme of the City and Guilds of London Institute.

Again, Dr. Tavaria of Bombay, my son, and I are prepared to assist you in every way. Since the publication of my letters in the *Jam-e-Jamshed*, and of my lectures, I have received inquiries from all parts of the country and I have answered all of them. Here is the file of these letters. You can see how big it is. It contains letters from all parts of India, making inquiries on a variety of subjects. I have answered all these inquiries to the best of my abilities.

We shall give such assistance as we can. But if there be anything which we cannot answer, we shall get information about it from experts in England, Germany, and America. That is, we have scientific advisers who will give advice in their special subjects. They will, of course, have to be paid their fees, which will be reasonable.

Lastly, the Industrial Association, under whose auspices we have met to-day, will be very happy to advise and assist every aspirant after industrial knowledge.

I shall now proceed to answer objections that have been brought against my preaching. Some say I was able to teach my son a new industry because I had knowledge, money, and influence. I admit that I have knowledge, but I ask, whether there are not in the town of Poona, or, for the matter of that, in this present Meeting, a number who have the same amount of knowledge as I have, if not greater? Can they not teach their sons as I did mine? Then, as regards money, I admit that by living economically I had saved a little. But are there not hundreds and thousands of persons in this city who are many times richer than myself? Do they not spend money in making their sons pleaders and doctors? Many of them send their sons to England and spend thousands of Rupees. Cannot these very men spend the same amount or even less on teaching their sons a new industry? Then, again, it is said I had influence. I admit having a little of it. But is the city of Poona without men of influence? Lastly it is urged that I had these three combined. Here, too, I admit that I have all these combined. But here again ask the same question, Are there not many persons who have all these combined in them? There are many. Then, how is it that there is a necessity for such lectures of mine? How is it that there has been in this direction no commencement even? My answer is that enterprise is wanting. A new industry requires money and patience, and very few parents will risk their money or have patience to teach their sons or to wait for success. 'To them I say without boasting, 'Do as I have done, and you are sure to succeed." Some parents say to me, "We can give our sons money, but we do not want them to bother us more about their prospects." I say to them, "If a parent does not do all he can for the advancement of hisson, he does not do his duty by him." He should advise his son in selecting a suitable industry, or select one for him. He should join him in his studies, or, at any rate, inquire how he is getting on. He should join in his experiments, compliment him on his success, sympathize with him in his failures, cheer him on to new experiments, and ultimately lead him to success. Then he should use his influence to start him in business and look after him until he settles down. I consider this a part of a parent's duty.

Some young men ask me to select an industry for them. They also ask me whether I shall teach them a particular industry; and some go so far as to ask me to support them while I teach them one. Good, I should do all for them, select the industry, teach it, and support them while learning it!! This is helplessness indeed!! To such young men I say, "Do as much as you can by your own unaided exertions. Then ask for help. But if you want others to do everything for you, you will be sorely disappointed." Some persons may perhaps ask whether any new industry can be learned without outside aid. To encourage them I say, "Yes; there have been many instances in which this has happened, and there is no reason why you should not succeed if you exert yourself." But alas! this "exerting oneself" is wanting among us.

Now I have done. If my lecture has influenced even 5 out of these 500 who are present I shall consider my trouble amply rewarded.

In conclusion, I recommend that associations for the encouragement of industries be started all over our country. You are very fortunate that there is one already established in your city. Join it and assist it, and I have no doubt that with the help of such associations, our country will yet rise to be one of the foremost in industrial prosperity.

Mr. Giles then asked whether any gentlemen had any remarks to make on the lecture. Whereupon, Dr. Thomson, of the Science College, said that he was pleased to see that an association had been formed for the encouragement of industrial education, and that he would be glad to join it. He approved of all that Mr. Talati had said, and he particularly emphasized the wrong idea of dignity which people in India had. He gave the instance of a mukadam of a gang of coolies who thought himself too high to work with his own hands, whilst in England, he said the mukadum did more work than any one of the gang. He remarked that his students, while going on a survey party, wanted coolies to carry the instruments which in England were carried by the student themselves. In the Presidency of Bombay there are twenty schools and institutions in which technical education is given. In Sind the number is about the same. In all these schools the foundation of all education—reading, writing, and arithmetic—go hand in hand with the technical training. In the schools, as distinct from the larger institutions, it is not to be expected that trades can be taught there is not time for that; what can be done is to teach such subjects as Drawing, Woodwork, and Smithery; by this, the hands and eyes of the boys are trained, and the boys themselves are in a position to become much better workmen than we can find in the bazaar.

For the furtherance of such education, the energies of this Association should be put forth; and strong efforts made to enlist the co-operation of the people in this good work. When Dr. Thomson resumed his seat, Rao Saheb Vital Narayan Pathak, M.A., addressed the meeting. "Ladies and Gentlemen," he said, I am sure we are all obliged to Mr. Talati for the very instructive lecture he has given on "What to do with Our Boys." The lecture was full of practical hints, and was illustrated by the difficulties and trials the lecturer met with in teaching his son the industry of leather-making. Gentlemen, one of the greatest wants of the people of this country is instruction in industrial arts and manufactures. In view of the fact that fully 80 per cent. of the people of the country is agricultural, and dependent on the cultivation of the soil, and employments connected therewith, that the country is periodically exposed to droughts prevailing over extensive areas, and that its vast and multitudinous populations suffer from starvation and all the privation attendant on famines, almost every ten years, the importance, nay, the urgent necessity, of developing the industries and manufactures of the country cannot be overrated. It is the interest of the Government, no less than that of the people, to improve and develop the industries of the country by the establishment of schools of arts and industries, in every province and in every district. In Germany, in America, and in all the advanced countries of the world there is a regular gradation of trade and industrial schools established, in which the labouring classes of the country are instructed in the elements of arts and manufactures. The Government of this country have very liberally established schools in every district, and in every part of a district, in which the elements of reading, writing and casting account are taught. Now, all this is very good, and very kind of Government, and we ought to feel thankful for it, especially when a large percentage of the people is ignorant of these things. But the question of the moment, which is every year becoming more and more pressing, is how to face and mitigate the consequences of droughts and famines. Government have hitherto very bravely fought famines and have very generously spent millions of money in saving the lives of people. If we take into consideration only recent famines and only those which prevailed over large areas—the Orissa famine, the Bengal famine the South India and the Deccan famine of 1876, and the great famine of 1896 — we shall find that the expenditure which Government have incurred on their account amounts to about 18 crores of rupees. Now, this is very kind and humane of Government, and the people cannot be too grateful for it. But this is, after all, a curative measure. A wise, prescient, and resourceful Government should devise all possible preventive measures. Irrigation is one of them, and Government have spent large sums on the storage of rain-water, the damming up of rivers, and the construction of canals. But all parts of the country are not suitable for irrigational works. A time has arrived when Government should pay more systematic attention to Technical Education, and organize schools to give instruction to the vast mass of the labouring population in arts and manufactures. Government should consider if a certain portion of the "Famine Insurance Fund" cannot be usefully devoted towards the establishment of technical schools throughout the country. It is good to feed the people when they are starving, but it is better to prevent them from starving, by teaching them some art or industry, which will enable them to earn their livelihood in times of famine. In a word Government should try to bring up the proportion between the agricultural and industrial population of this country somewhat to the level of that prevailing in the countries of Europe. So long as 80 per cent. of the population is solely dependent on the cultivation of land, Government and the people cannot escape the appalling consequences of famine.

The lecturer began by putting the very pertinent question "What shall we do with our boys"? Now, none of us can have more than 7 or 8 boys at the utmost. Well, if the question "What shall we do with our boys" is pressing so hard upon us, with what force should it press on the Government of India, when the number of its boys—well, boys as well as girls—whose feeding it has to look to, exceeds many millions." The population of India is just increasing one per cent. per year. Taking 30 crores as the total population, just 30 *lakhs* of children are brought to the door of the Government of India, to be looked after and provided for every year. Gentlemen, I am telling you nothing but a stern reality, which the Government is fully aware of, and which will tax all its wisdom, foresight, and resources, to face and provide against, in the near future.

The Hon'ble Mr. Giles, in concluding the proceedings, complimented the lecturer on his able treatment of the subject, and in reference to Mr. Pathak's remark said, that if there was such a fund as he mentioned and that if a part of it was available for technical education he would rather that the same be handed over, not to him but to the Association, under whose auspices they had met that day, because the officials of the Department had their own work to do, and they would not have time to manage such a fund in an efficient way, while the Association would be the proper body to manage it. He laid stress on the fact that Government had been doing what is necessary in giving the people general education, and pointed out how the good general education received by Professor Gujjar had fitted him for subsequent study as a specialist, in which capacity he had recently obtained a signal success which was well known to all.

Continuing he said, that the Government cannot undertake to teach industries, the success of which depended on combination. He expressed approval of the aims of the Association and assured them of support from the Educational Department in the furtherance of its objects. Mr. Giles said that it was under consideration to hold examinations in Bombay in various technical subjects, on behalf of the London Society of Science and Art just in the same way as at present examinations are held on behalf of the City of London Guilds and Technical Institutes, and this, he hoped, would go a great way in directing the attention of students to such subjects as would be of great practical use to commercial firms of Bombay.

A vote of thanks to the lecturer for his excellent treatment of the subject and to the Hon'ble Mr. Giles for his able conduct in the chair was proposed by R. B. M. Vishweshwar Aya, B. A., L. C. E. and seconded by R. B.S.B. Jather, B.A., C.I.E., and carried by acclamation.

Several pieces of leather prepared by Mr. Kaikhushru Talati were exhibited to the people assembled, as also Delhi manufactured biscuits, as specimens of modern Indian Industries, by Mr. Nagpurker, Hon. Sec. of the Asociation.

Before returing to Ahmedabad Mr. Talati and his son were received by His Excellency the Governor, who desired to see samples of their leather.

As the subject of Technical Education has attracted the attention of many persons in and out of India, the remarks* based on large experience of Mr. R. G. Oxenham, M. A. (now in the retired list), one of the greatest educationists of this Presidency, will be very appropriate here :—

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* Made at a Prize Distribution meeting of one of the big Aided High Schools in the Bombay Presidency.

"In history you will find that in education, as in politics, at different periods special subjects have been considered. In English History we find that at various times the power of the king, the barons, Parliament, the Pope, &c., have been considered as subjects for special consideration. At one time Spain had been our greatest danger, and at another, France, and her military Empire. But under all these circumstances the British Empire has flourished; and in like manner will the main principles of education flourish. Education was at one time supposed to consist mainly of theology, at another of classics, and now natural science and Technical Education are considered a *sine quâ non.* I am far from believing that one branch should be sacrificed to another; that is, taking the same view as the Turk, who "would not brook a brother near the throne." My belief is that the two branches of education—general and technical—should go hand in hand; and although I know that in England a metaphorical phrase would not be permitted in public speaking, still in India, I may be allowed to liken general and Technical Education to "two coursers carrying along the car of educational progress."

At the close of the proceedings, Mr. Talati distributed little pamphlets containing the following list of industries recommended in India.

CLASS I.

Requiring capital and thorough scientific knowledge.

1. Manufacture of Alkalis.
2. ,, ,, Medicinal drugs.
3. ,, ,, Soap.
4. ,, ,, Sugar.
5. ,, ,, Oils, varnishes, & painters' colours.
6. ,, ,, Candles.
7. ,, ,, Paper.
8. Manufacture of Pottery.
9. ,, ,, Glass.
10. Tanning.
11. Leather dressing.
12. Manufacture of clocks and watches.
13. Mine surveying.
14. Raising and preparation of ores.
15. Marble and granite quarrying.
16. Dyeing cotton, silk, and wool.
17. Bleaching cotton and linen.
18. Calico printing.
19. Manufacture of coal-tar colours.
20. Manufacture of cements.
21. Cattle breeding.
22. Cutlery work.

CLASS II.

Requiring capital and manual skill.

1. Metal plate work.
2. Frame work knitting and hosiery
3. Carpet manufacture.
4. Umbrella manufacture.
5. Dairy work.

CLASS III.

Requiring thorough scientific knowledge and a little capital.

1. Electric lighting.
2. Electro-metallurgy.
3. Metal enamelling.
4. Condensing milk.
5. Tinning fish and biscuits.
6. Distillation of perfumes of Indian flowers.
7. Discovery and manufacture of economic products from trees.
8. Making felt for hats.
9. Refining Indian oils.
10. Manufacture of mixed metals

CLASS IV.

Requiring neither capital nor much scientific knowledge.

1. Tailoring.
2. Boot-making.
3. Goldsmith's work.
4. Manufacture of leather goods such as purses, portmanteaux, etc.
5. Manufacture of horn and bone goods, such as knife handles, buttons, etc.
6. Lining of carriages.

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Higher Commercial Education.

The Conference which was lately held at the Guildhall, under the auspices of the London Chamber of Commerce, marks a great advance in the movement for higher commercial education in England. It laid down, once for all, the absolute necessity of a sound general education as a preliminary to any later specialization. Nor did it confine its efforts to defining the indispensable basis on which any system of higher commercial education must be erected; it likewise proposed, before its dissolution, that the organizing committee (with power to add to their number) should sit *en permanence*, and formulate and carry into effect the results of the Conference.

It is here, however, that a clear conception is essential of what higher commercial education means. At present it is for most people a more unexplored, undelimitated domain than secondary education. There is, in fact, higher commercial education and higher commercial education, though the majority of the speakers at the Conference made no attempt to discriminate between the different kinds. Nearly all, in fact, depends on the age at which the entrance is fixed. No doubt, age is not a hard-and-fast method for measuring mental capacity, but as a rough-and-ready, and, indeed, sufficient, rule for regulating the standard of teaching, it is far and away the best. When, therefore, we find one expert proposing to fix the entrance age at 16, and another suggesting 18 or 19, it is obvious they are not talking about the same standard of education, though both forms of instruction are called higher commercial. The first named is really a continuation of secondary, a sort of higher secondary in fact, much in the same way, as the higher grade is, or ought to be, a continuation of primary, while the second named form of higher commercial education is rather of University standing and rank. The difference between the two may be well indicated by the difference which similarly exists in technical instruction between those who commence at 15, and those for whom 18 is the minimum age of entry. A rough table would clearly illustrate this :—

Primary to 12 Higher primary to 15-16. (Crafts Commercial training, &c.)	Secondary to 16 Higher Secondary to 18-19. Literary H. Commercial Scientific. Technical.	University 18-19 to 21-22. Literary Technical Scientific H. Commercial &c.

From this it will be readily seen that there are really two distinct forms of higher commercial education apart from evening classes such as the London School Board has just inaugurated, and that these two forms are not only not antagonistic to one another, but are complementary, though the lower may very well shade off into the higher without undue overlapping, the two being essential to the commercial education of the country, if we are to develop and add to the great commercial talents and aptitudes we have inherited.

Now it seems probable from our English way of beginning in education from below, as in the case of technical instruction, that the first sort of higher commercial education to be definitely taken in hand in England will be that which I have described as the higher secondary type, for which the entrance age is 16. It is proposed to utilize the London College for day classes to be started for higher commercial education with a course of study for three years, the age of entrance being fixed at 16. The proposal is worthy of the most careful consideration. By placing the age as low as 16 it does not tend to confound together the two forms of higher commercial education by setting up something betwixt and between. On the other hand, it disposes, in a great measure, of the financial difficulty, which is the first question to be solved, the Government having so far given it to be understood that no special State-aid towards higher commercial education will be forthcoming. It is to be hoped that the business men of London, with the Chamber of Commerce at their head, on seeing the question thus brought within the range of practical politics, will not only accord it their approval, but will support it with their subscriptions by founding scholarships or contributing to the endowment fund. They have before them the remarkable example of France whose merchant princes have come forward and given many thousands of pounds, and that in a country where the State is regarded as the paymaster-general. But their interest must not end here. Their presence on the governing body of the new college will be essential, especially with a view to drawing up the curriculum of the school. At the Antwerp Conference, this co-operation between the business man and the educationalist was insisted on by all the foreign experts. And, lastly, the big merchant must be prepared to give preference to candidates coming from the school, coupled with more or less definite chances of promotion, if he is not willing to take them at once into higher posts, as his French *confréres* are.

And now to come to the curriculum. Care must be taken to have no "hotch-potch" syllabus of a mass of useless and unrelated facts; the ideal must be to evolve a scheme in which the careful correlation of a large amount of valuable knowledge will be made ancillary to the development of the intelligence. The nerve muscle of imagination must not be sacrificed to the albumen of memory. It is likewise to be hoped that the School Committee in drawing up the curriculum will thus avoid the mistake which seems to have been made to some extent in France and Belgium, that of making the "programme" too full, remembering that what a "programme" gains in breadth it loses in depth.

A point that requires thoroughly threshing out is the extent to which the Bureau Commercial is to be used. At Antwerp, the bureau seems to be a success, and according to a very competent witness there is nothing of educational theatricals about it. At Paris the name has been abolished, but many of its methods have been retained, the professor being specially recommended to render his teaching as practical as possible throughout, and to avoid imparting any abstract knowledge without at once showing its application in the concrete. The main subjects will be book-keeping, accountancy, modern languages, political and commercial geography, commercial law, and political economy. But pupils will naturally be allowed to specialize according to the trade or calling they propose to adopt. It is evident that the future banker will desire to make banking his main subject, while the pupil who is going into trade will devote himself t[illegible] a special study of merchandise and commercial geogra[illegible]. The success of the Great Lyons School is largely due to the facilities it allows for specialization. Certain subjects are common for all pupils, but these, again, have special classes in their own subjects. It is easy to see that if the London College wishes thoroughly to serve all the different kinds of trade and commerce in London, it must provide ultimately for many branches of specialization. I say trade advisedly, for the producer to-day must not only know how to produce but how to market his productions ; the commercial side of his business is quite as important as the technical and industrial. Another valuable form of instruction is the series of "object-lessons" afforded by visits to large factories and works, provided they are not allowed to degenerate into picnics. As for the question of fees, it can only be decided by the school committee after due consideration of the ways and means at their disposal. In the matter of pupils it is to be hoped that merchants will copy the example of the French men of business and send their sons to the college, while smart lads who are not *fils a papa,* as the French say, with a place already awaiting them in business, should be attracted by scholarships and the inducement of finding better posts on leaving, or at least entering business with better prospects. It is from these, to quote Mr. Macan, that business managers may later on be selected ; and surely with the dearth of foreign language speaking Englishmen there must be good openings abroad for commercial travellers, a calling for which the college should afford a good training.

A third category the school might cater for is the trade consular service. The diplomat of to-day is fast approximating to a mere telegraph operator in close connection with the foreign office ; on the other hand, his commercial duties are growing increasingly important. The British Government would do well to copy the example of France and Belgium, and offer special posts in the service to the best of the pupils on finishing their studies, or so to arrange the scheme of their examination as to include in a large measure the subjects the pupils have been studying at the College.

And finally the College might start a higher section to serve as a training school for teachers in commercial subjects, of which the supply is far from abundant. Naturally a higher standard would have to be demanded from these students, inasmuch as they would require to stop at least four years, if not five, as in Italy, against the two or three years of the other students.

As regards the staff, much depends on the choice of the principal, for it is to be presumed, there will be one "to rule by day" over the higher commercial education, while the night work will go on as before. He must be a man in close sympathy and connection with the mercantile world; otherwise he will not enjoy their confidence. He must also be highly paid. A low salary may attract a swarm of mediocrities, but it will do no more. The professors, also, must be well remunerated, as Dr. J. J. Findlay has already pointed out. Two further questions arise on the question of the teaching staff. Should the teachers be commercial men or mere teachers? The answer seems to be a compromise between the two. The best commercial men are too busy to teach, and one would scarcely employ a man who had failed in business; on the other hand, the mere professor is apt to become "Academic." What is wanted is a man who possesses the "teaching gift" with strong business interests. The other question is, by whom shall the modern languages be taught? Here, as far as Germany is concerned, the experience is decisive. To quote a well known witness—"They have found foreigners cannot do the work as well as their own people can if the latter are properly trained," but as the supply will be scanty at first, we shall probably be obliged to employ foreigners, at any rate at the start.

How is the teaching to be controlled? This depends on whether there should be any leaving certificate or degree. In the unlikely event of there not being any, inspection might perhaps be taken by the "Board of Trade." But most people regard these modern "title-deeds" as indispensable. Examinations also have their uses. They help to systematize in a pupil's mind the knowledge he has acquired, and to verify the instruction given. This can be accomplished without leading to a system of cram, the fault of which lies most often at the examiner's door.

Should degrees be awarded? I fancy the Universities would protest, and rightly. The average age at which a University degree is won is well over 20. To place the attainment of such an honour within the powers of the average boy of 19 would be clearly to lower the standard. Besides, in England, we have not the same thirst for degrees and distinctions as exists abroad; and most probably, if any degree were conferred, the recipient would in imitation of the French nickname of *bachelièr d'épicerie*, be dubbed licentiate in tea-dealing, or something equally flattering. But diplomas might be given, not, however, with too lavish a hand. It is no good letting duffers through for the sake of numbers; they will only bring disgrace on the College by their subsequent incompetence.

An entrance examination should be indispensable, but a large amount of equivalents should be accepted in lieu of the examination. It would probably be necessary to have preparatory classes with the view of coaching up in their weak subjects those who wished to pass the entrance examination. This would apply especially to foreign languages, one of which should be obligatory for the examination. Latin certainly should not be essential; at most, merit in this subject should act as compensation for deficiency in others. Arithmetic, Algebra, Geometry, English History, Geography, Essay (including spelling and wrting), Physics, and Chemistry should be among the subjects.

A school library and museum would be indispensable. To stock the latter the Imperial Institute might well be laid under contribution.

As regards scholarships, they might, according to the wish of the donor, be open, or limited to those whose parents stand in need of help to send them to the College. It might not be a bad idea to offer, if possible, scholarships in all the colonies to be tenable at the College. Such a proceeding would go far to promote trade relationships. Such at least is the experience of the Antwerp Institute as regards the foreigners it receives. But it would do more—it would tend to promote that closer union towards which we are all aiming to-day, that grand Zollverein between the mother country and her colonies, towards which Canada has lately taken so important a step. And, were similar schools established in the colonies, a sort of Scholastic Hanseatic league might be formed for the exchange of scholars in their third year between the metropolitan centre and the colonies.—*London Times.*

Education in the North-West Provinces.

WE have received the Report for 1897-98 of the Director of Public Instruction in the North-West Provinces and Oudh. As usual a large part of it is taken up with statistics, which to the uninitiated are a variety and to the initiated a weariness of the spirit. The cream of them is skimmed off in the Resolution of Government which accompanies the Report. There we learn that in those provinces the number of scholars in public and private institutions increased by 3,702, and the number of institutions by 414. With this increase appears a consequent rise in expenditure of Rs. 34,123, the comparative smallness of which sum should help to make us realize the cheapness of Education in India. Nor, *pace* the assailants of Education in General and Indian Education in particular, is the article supplied nasty as well as cheap. True there is the common complaint that the Education afforded is too 'literary' and not sufficiently practical, that, for instance, the special facilities provided at the Muir College for the study of science are little appreciated, the "less useful" subjects of philosophy, political economy and political science being preferred. But on the other hand, good work is being done at the Training Colleges, and the influence of their teaching is making itself wideley felt, which is, perhaps, the best augury of future progress that we could have. Moreover, really sound instruction in practical subjects is being given at Roorkee, where the new photographic department is proving a great success, and in the Industrial School at Lucknow, from which there flows a constant stream of pupils well enough taught in the manual arts to earn good wages as artizans. Female education has also improved, the percentage of the female population of school-going age now under instruction being ·40 as against ·36 in the previous year. "Little girls" are being swept into the educational net of the Primary Schools in appreciable numbers, while even higher education for women is not despaired of.

But all the same, there is plenty of room for improvement all round, and first and foremost, apparently, in the nature of the average schoolboy. Mr. Lewis is evidently a firm believer in the theory of original sin. He laments pathetically that, whatever a paternal department may do, one has always to reckon with the boy's own nature and "This is sure to break out now and then." Was Mr. Lewis never a boy? And did he never "break out"? Happy North-West Provinces to have for a Director one of such an impeccable youth—*Macte puer virtute!* But to be a Director it is not necessary also to be *Pecksniffian.* From pessimism to cynicism is but a step, and so we are not surprised when, in the course of Mr. Lewis's report, we come across such cynical touches as the following:—"The *happy* indifference to discipline" which characterizes the aided schools, "The *so-called* managers" of schools under the district board, "The subject is as unintelligently taught *as it can well be*," &c. No doubt, these are "writ sarcastic" and also with the instruction of "giving life and verisimilitude to an otherwise bold and uninteresting narrative." But then the Aryan brother does not understand sarcasm—or at least the more refined European variety of it, and liveliness may sometimes be purchased too dearly at the expense of dignity.

Defects capable of more immediate remedy than the inherent sinfulness of human nature are faulty pronunciation of English learning by rote and bad manners. The first vice is obviously one of which the scholars of the Anglo-Vernacular schools are chiefly guilty. In its inception it is due to the teachers directly. Most of the latter have mixed little or not at all with Europeans, as the result of which they evolve a pronunciation peculiarly their own and almost unintelligible to a newly-arrived Englishman. The teachers must be trained by Englishmen where possible, and where this is impossible by natives who have mixed freely with Englishmen. Devoutly desirable as this consummation is it is obviously far distant.

Learning by rote is the besetting sin of all Indian students. Curst with the fatal blessing of a facile memory they often prefer to tax this to breaking strain rather than to exercise such intelligence as they possess. The bane affects all subjects, history, geography, science, and even the translation of English into Vernacular. Here again to reform the pupils we must begin with the teachers. It is, or should be, the special object of all training colleges to teach their men to teach intelligently. The more of such trained men we get, the less rampant will be the evil of cram. And in passing we may ask why is it that History and Geography are regarded with such listlessness by Hindus and Mahomedans alike? It is in these subjects that learning by heart prevails to the worst extent, and that intelligence is apparently deemed unnecessary. The reason probably lies not in the immemorial carelessness of the Indian mind for these subjects—the Mussulmans, indeed, have had many historians—but in its inability to grasp the practical value of objective facts present or past. Science can do much to make Indian students realize the importance of one class of fact and under science we would include geography (properly taught), but History, if only set forth in the right way, can do even more than science in India. We firmly believe that a just apprehension of their country's past, an intelligent comparison of that past with the present will be the best and surest foundation of Indians' loyalty to the British *râj*. For its own sake our Government must encourage the intelligent study of History. On the other hand, the realization of past evils and present benefits will be an incalculable advantage to the native students even if it only saves him from belated aspirations after anachronistic revivals. In the training colleges much is done to make Geography (*e. g.* the construction of geographical models of different countries) but more might be done for History.

But of all the faults of the North-West student bad manners is, it would seem, in Mr. Lewis's eyes the most heinous. With him indeed it is positively a crime, and he breathes for the dire threats of "exemplary discipline," "the use of the cane and imposition," as in the good old days of our youth, fines levied upon parents and so forth. In our presidency it is difficult to take Mr. Lewis seriously in his diatribes upon this subject. From the bottom to the top of the Educational institutions of Bombay the question of discipline has never proved a difficulty of any magnitude. Our students may not exactly be budding Chesterfields, and of course they have their little oriental idiosyncracies, but one can safely say that deliberate disrespect exhibited towards teachers, wanton rowdiness and even the irrepressible "cheekiness" which arises from pure exuberance of vivacity, are so rare as to be almost unknown. Troubles of course have occurred and will occur, but they are almost always due to external influences or special circumstances (such as political agitation, times of stress, etc.) and not to any inherent defect in the nature of the Indian student. Does the North-Western Director imply that in this respect the Indian boy would compare badly with the cockney nursling of the London school board as the stolid-yokels of the English village school? We know something of both these specimens of 19th century culture, and so far as mere manners go, the son of a Bombay *kunbi* could give them unlimited points. Discipline must be maintained of course and, the ultimate basis of all Law being force, in school the cane is necessary as both symbol and instrument of Law, but if Mr. Lewis regards it as an effective means towards polishing the rough material of Indian manners, we fear he will be disappointed. And finally we wonder if the North-Western scholar is really so very reprobate. If he is whose fault is it? Education, no doubt, tends to purge away the slough of eastern servility, which, we are sure, Mr. Lewis cannot regret, but it is the duty of the ministers and missionaries of Education to see that something is supplied in place of that which is so happily swept away. The department is on its trial, and must look to itself in the matter. The querulous reiteration of disapproval will do no good.

There are many points in the Report which educationalists in Bombay will do well to notice, but we cannot do more than summarize a few of them here. Municipalities in the North-West seem as bad in their management of schools as most municipalities elsewhere, and occasionally worse, *e. g.*, at Allahabad (Report, p. 8.) District Boards chiefly interest themselves in matters educational by way of discovering new methods of evading educational expenditure and in some cases corruption appears to be rampant among them. Missionary societies do good work but apparently are liable to be led away by influences which do no credit to their heads, however good their hearts may be. Athletics are looking up all round, there being a distinct advance in skill noticeable in all branches, but physical education in the stricter sense appears to have made less progress—though taking this fact with the former one, this is not perhaps an unmixed evil. The growing interest in athletics is said to have a perceptible influence upon the general moral tone of the children under instruction. It is also being found that excellence in such things is no bar to the attainment of mental excellence. Thus a demand is spreading for teachers possessed of athletic as well as literary and scientific qualifications, and the training colleges do their best to train men to be able to organize and carry on school sports. In this way discipline and that spirit of fair play and give-and-take which characterizes cricket and football will, it is hoped, gradually permeate through the mass of scholars to whom direct moral teaching appeals little and who are too often perverted by vicious home influences. Cheating, impersonation, false excuses, forgeries and anonymous letters will not flourish in such rank luxuriance when physical exercise and manly games requiring frankness and fairness, as well as pluck and skill, have become really popular, while more serious forms of evil will be still more distinctly discouraged, even if they can never be entirely eradicated in a tropical climate and among oriental races.

The Eyesight of Children.

BY R. BRUDENELL CARTER, F.R.C.S.

(Continued from page 265.)

In 1895, I instituted an examination of the sight of a large number of children in the London Board schools, and as a preliminary measure, 8,125 of these children, in 25 schools, or 16,250 eyes, were tested as to acuteness of vision by their teachers. No doubt there were some inaccuracies, but I have reason to believe that this part of the examination was, on the whole, carefully and well conducted. A disc was hung up in a good light, and each child was made to stand at such a distance from it that the third letter of the series of four was seen under that visual angle of five minutes which satisfies the requirements of normal vision. By turning the disc the exposed letters could be varied. Each child had first one eye covered, then the other, and was told to read down the letters from the top. Out of the 8,125 children, there were only 3,181, or 39·15 per cent., who had normal vision with both eyes; and the cases of normal vision with one eye and sub-normal with the other were an insignificant minority; so that, roughly, of London school children between the ages of 8 and 13, nearly 60 per cent. do not see as acutely—that is, as well and as sharply—as they ought to do. To this part of the subject, which seems to be of national importance, I will presently return.

If was my original intention personally to examine all the cases of sub-normal vision, but the time required for the purpose was so great, and the difficulties of the undertaking were, in many respects, so serious, that I was only able, with the assistance of my friend, Mr. Hickman, to examine 1,448 children. Of these, we found flat-eyes in 61 per cent. and short-sight of both eyes in 14·3 per cent. Each of these divisions will require a brief discussion.

It must be conceded, in the first place, that flat-eye probably exists in a considerable proportion of the children whose sight was returned by the teachers as normal; and to this condition, as I have said, I do not attach a great deal of importance, except in so far as it may be an evidence of general under-development. I speak of this question from knowledge of many cases in which, in persons of good health and good muscular development, the eyes are flat to the extent of as much as two dioptres, and yet have been used diligently without suffering or inconvenience, and without any need for the help of spectacles until about the ordinary age for such assistance. On the other hand, there are many persons in whom even a small amount of flatness gives rise to troublesome symptoms, the question having more relation to the general capacity for nervous and muscular work than to the actual formation of the eyes themselves. In other words, some people are able easily to overcome a defect which in others is liable to be a cause of incapacity. When flat eye is extreme in degree, or when it occurs in feeble children, the effort of correcting it becomes fatiguing, and, after a short period of reading or of other close work, the effort is relaxed, with the result that the vision becomes misty and obscure. The little sufferers then rub their eyes, often with dirty fingers, and thus vitiate them still more; while the efforts call for an additional blood supply and renders them flushed and angry. Headache often follows, and, at the best, the attention of the mind is diverted from the tasks to the bodily feelings. Sometimes the child finds it more easy to read by bringing the page very near to the eyes, the increased magnitude of the retinal image being more than a compensation for the greater strain on the accommodation, and this tendency has often been increased by bad school fittings, such as faulty seats and desks, which have rendered it difficult for the pupils to maintain a correct position of the head and of the body, and have compelled them to stoop more or less obliquely over their work. Faulty positions are hurtful in three ways: first, by interfering with the circulation, that is with the proper passage of the blood between the heart and the brain; secondly, by promoting contraction of the chest and spinal curvature: and thirdly, by calling upon the eyes for undue convergence, and for positions in which their combined action is rendered difficult. The first two are obvious evils, upon which I need not dwell; but the third, the undue approximation of the eyes to their work, is apt to cause the flat eye to pass over into the short-sighted one, a change of which the researches of Dr. Risely in Philadelphia have brought to light many examples.

The actions of the muscles by which the eyes are moved work in harmony with each other, are somewhat complicated, and give rise to many considerations, with only one of which I need trouble you on the present occasion. The centres of the eyeballs being roughly 2½ inches apart, the line of visual direction—the line along which each eye looks in order to see the object towards which it is directed—varies in its course with the nearness of the object. In looking at an infinitely distant object, such as a star, the lines are parallel, and in looking at a near object, they are rendered convergent; but this convergence does not become manifest until the object is within about 20 feet, after which it rapidly increases and attains its maximum when both eyes are directed towards an object, such as a printed page, which is held only a few inches from them. It is necessary for single vision with the two eyes that the two images should fall on corresponding points of the two retinæ, and, therefore, in all near vision accurate convergence must be steadily maintained. This is effected by the action of two muscles, each of which is attached to the inner side of the external surface of its corresponding eyeball, and by its corresponding extremity to the skull. The muscles, so to speak, pull the eyes round, not altering their actual position within their orbits, but causing them to rotate on their respective centres. Now, I think it will be obvious that a continued convergence effort to a near point must not only be fatiguing to the muscles by which it is accomplished, but that it must also cast a considerable strain upon the tunic or outer covering of the eye at the point where the muscle is inserted. It has long been recognized that this strain may positively stretch the eyeball, and may cause it to yield to a point nearly opposite to that at which the traction is exerted, thus rendering it longer from point to back, and therefore, in other words, rendering it short-sighted. Emmetropic eyes, generally speaking, will bear without injury any amount of convergence which is likely to be required from them; but it is highly probable that short-sighted eyes, as a rule, inherit a weakness of the external tunic, and are, therefore, predisposed to stretch and yield under the influence of muscular action. Differences of opinion still exist, among very good judges, with regard to the precise method of productions of the steady increase in the degree of short sight which is so often witnessed and also with regard to the passage of flatness into short sight; but there is no question but that both these changes, if not directly caused, are at least greatly assisted by over-convergence, and also by the many faulty positions of the head and body which flat-eyed or short-sighted children constantly assume, either on account of badly arranged seats and desks or to get more light, or in some way to facilitate the employment of the eyes in unfavourable circumstances and surroundings. To show the sort of effect that may be produced, I put upon the screen [shown] two pictures photographed from actual school-rooms, one of which was badly lighted from the right of the workers, while the other was properly lighted from the left. In the former no child is sitting straight, but all are striving by various strange attitudes to compensate for the artificial difficulties under which they are placed, and it can readily be imagined that the undue approximation of the eyes to their work and the disparate positions of the two in relation to it, must call upon the muscles for irksome and irregular contractions. Now these irregular contractions, it has been shown by many observers, are fertile causes of that extension of the eyeball from front to back which is the actual physical cause of increasing or progressive short-sight, and also the cause of the acquired or secondary short-sight which is a not uncommon sequence of the higher degrees of flatness, or of any degrees of flatness if the muscles which should counteract it are weak and irritable. If the eyes are compelled to work under thoroughly unfavourable conditions, they will inevitably suffer in some degree. It is the duty of school managers to see that such conditions do not obtain in the schools themselves, and it is the duty of parents to see that they are obviated, as far as possible, in the home. Wherever home study is required the managers should, I think, see that parents are cautioned with regard to the conditions under which alone it should be carried out. A chair and table which compel the assumption of a faulty position will be quite as hurtful at home, if they are in use there, as they would be in a school, probably more hurtful because the home light is, on the whole, less likely to be sufficient than that of the school.

It is obvious that the educational arrangements of a great community must be mainly governed by the requirements of the majority of the scholars, and that the responsibility of claiming provision for exceptional requirements must rest mainly with the parents of the children. But if we consider how many of these parents are themselves ignorant of the existence of these exceptional requirements, I think it is not too much to ask that they should be assisted by school authorities in discovering them. Very few people have any exact or useful knowledge as to what their children ought to be able to see. Most parents would know about how far a child of ten should be able to run or to walk, how high he might be expected to jump, what weight he might be reasonably expected to carry. Not one in a thousand could say what the child ought to be able to see, or what sized letters he ought to be able to read at a given distance. I think it should form part of the business of schools, in this respect, to educate parents as well as children. I think the vision of every child brought to school should be tested on admission, and entered in a register. Done as a matter of routine, the testing would not occupy a minute a child, and in every case in which the vision was subnormal, the parent should receive official information of the fact on a printed form to be issued by the teacher, and which should recommend the obtaining of skilled advice as to vision before school was proceeded with. If this were done, the matter would no longer be suffered to drift, as it too often is at present; or at least the parents would be unable to plead ignorance. At the numerous ophthalmic hospitals which are open to the poor, or from private practitioners in the case of those who were better off, parents would learn under what conditions the education of their undersighted children could most profitably and most safely be conducted, and would have only themselves to blame if these conditions were not secured.

My enquiry, I am glad to say, so far as it extended, went to show that both the higher and more injurious forms of short-sight, and the higher and more injurious forms of flat-eye, were less common in the London schools than they are said to be in many other capitals; and that on the whole, the state of our children in these respects might be regarded as satisfactory. The unfavourable condition with which I was chiefly impressed arose from the defective character of the vision of many healthy and approximately well formed eyes, a defective character which appeared to me, as a matter of high probability, to be largely due to town surroundings, and to their influence upon the work which the eyes are habitually called upon to perform. As mentioned in my introductory observations, only 39·15 per cent. of all the children examined were found to be in possession of normal vision; that is, to be able to distinguish printed characters seen under a visional angle of five minutes.

My interpretation of this prevailing subnormality of vision is that it is mainly attributable to the surroundings and conditions of living of the children, although not specially to any which prevail in the schools. The diagram on the wall [shown] represents the hexagonal arrangement of the nerve terminations in the central or most acutely seeing part of the extra terminations, so minute that in an average adult eye, there would be about 7,000,000 of them in this small central area, and about 130,000,000 in the whole of the retina. Each of these terminations is believed to be punctually indivisible, and to respond as a whole to every impression which it receives. Let it be supposed that this letter E represents the image of such a letter, as it is cast upon the retina, and that it is of sufficient magnitude to leave a wholly unaffected hexagon between the upper and central, and again between the lower and central limbs of the letter. By means of these unaffected hexagons, which receive no impression of blackness, the existence and shape of the white interspaces will be distinguished; but if the image were only a little smaller, so that the horizontal limbs encroach ever so little upon intervening hexagons, then no clear interspaces will be perceived, and the figure will be only a blur. It is therefore manifest that the acuteness of vision must depend largely upon the actual magnitude of the hexagon; that if they are small, vision will be more acute, and that if they are large, vision will be less acute. The whole history of human development leads to belief in the existence of close interdependence between the quality of function and the mode of its habitual exercise; and I think it cannot be doubted that the habitual use of the eyes in looking at objects which are on the verge of visibility will have a decided tendency to promote the growth of nerve fibres, and thus to increase the power of faculty to which they are subservient. Now the visual power of London children is not cultivated by their environment. They see the other side of the street in which they live, and the carts and omnibuses of the thoroughfares, seeing them, as a rule, under a visual angle of five degrees rather than of five minutes. They scarcely ever have the visual attention strongly directed towards any object which it is difficult to see, or which subtends a visual angle approaching the limits of visibility; and hence their seeing function is never exerted, or at least is not habitually exerted, to anything like what should be the extent of its powers. The case of the country child is widely different. He has before him an expanse of landscape presenting numerous interesting objects under visual angles, which are rendered small by distance. He finds attraction in every hedge-row, flowers, insects, birds, nests, many of them disguised by their resemblance in colour to their surroundings, and requiring sharp and trained sight in order that they may be readily distinguished. His eyes are exercised beneficially in his daily life, and his vision, as far as I have been able to examine into the facts, is found to exceed the very moderate standard of normality, just as that of the city child is so often found to fall below it.

There are many other respects, besides vision, in which the conditions of city life are found to act, or rather would tend to act, prejudicially upon physical development; and in some at least of these we have seen, of late years, great and successful efforts to counteract the tendency. If we may accept Paley's definition of education, as comprising every preparation that is made during our youth for the sequel of our lives, I think that among these preparations, and as part of education, should be included an effort to cultivate the art of seeing, and to improve what I believe may be rightly called town vision. It must be remembered that the only visual efforts which are injurious are those which are directed to near things, and which therefore involve strain of the accommodation and of the muscles which effect conveyance, while all difficult seeing of distant things falls within the category of those efforts by which the powers of the organism making them are increased. Children in whom defective sight is attended by defective shape of the eyeball should be supplied with spectacles of the kind required for the correction of the individual defect ; and when so supplied, they should take part with others in the description of objects so placed as to subtend small visual angle letters or sentences, it may be of proper proportions, seen from the opposite side of the room, or pictures containing details, some of which would not be recognizable by subnormal vision. The training of the eyes is, I think, quite as important as any form of physical drill, to which much time is already devoted, and the two things might, without much difficulty, be combined. Moreover, as I have often said before, I should like to lay stress upon the desirableness of giving a place to excellence of vision among the various physical qualifications which are habitually tested by competition and for which prizes are awarded. A seeing contest would seem strange while the idea was new, but it would be just as reasonable as any other, and probably more useful than some. It would tend to diffuse a knowledge of what seeing ought to be, and would bring hundreds of eyes under training which they would not otherwise receive, and by which they could not fail to benefit. Not only would individual sight be improved to some extent, but a fair formation and an increased sensitiveness of the nerve-fibres of the retina would be likely to descend to offspring, and thus to be perpetuated in the race. The Tartar of Siberia, whose unaided eyes enabled him to tell Arago of the occultation of Jupiter's third satellite, or the South American guide who described to Humboldt, across a valley of the Andes, the position and order of march of a party which the great traveller could see only with the help of a telescope, had no better basis of physical formation than exists among ourselves. They were simply the descendants of people who, for generations, had been dependent for safety or for sustenance upon the acuteness of their sight, and in whom that faculty had in consequence become developed, just as, in the converse of these conditions, it has fallen to somewhat low state among many of ourselves."

History and Philosophy.

A REPLY.*

THE Senate debate on the M. A. History and Philosophy course, which came off on the 19th of September last, was more or less *caviare* to the general, and the reporters therefore wisely exercised their discretion in severely curtailing the speeches inflected on a patient house by myself and others. The meagre report, however, has led the writer of an article on History and Philosophy in the last number of the *Record* to fall into some ludicrous mistakes about the scheme submitted by me to the Senate.

The writer imagines that I went absurdly out of my way to have a fling at 'Congresswallahs' and 'Crammees' in connection with Professor Muller's ideas of teaching history. What that gentleman's ideas on the subject are, I do not know, not having the privilege of sitting at his feet when he is discoursing on history and economics in the class-rooms of the Elphinstone College. But of this I am certain, that the supposed sneer was with reference to two curious arguments brought forward by Professor Muller in advocacy of his scheme for the new History School. The learned professor argued somewhat in the following strain: the constitutional history of his scheme was likely to come in handy to the new History M. A., developed into a Member of the Legislative Council and about to be snubbed by some bigwig of a *Burra Sahib—ergo*, the scheme should be adopted; a smart student could go through the new M.A. course in one year, therefore the scheme must commend itself to the Senate. If Professor Muller thus gave himself away, what wonder that I availed myself of the obvious report, that the new History School would be a sort of nursery for the future Congresswallah or the future Member of the Legislative Council, that the professor's smart student would be a "Crammee," that, in short, that was not exactly the standpoint from which a professor should approach the subject under discussion?

One other point made in the article is that I have taken the non-essential for the essential, that I would have the unfortunate candidate swallow a strange medley of historical odds and ends, a diet more likely to induce mental windiness and indigestion than health and strength. I may well retort that it is the writer who has taken the non-essential of my scheme for the essential. I lay as much stress as the writer himself on the study of English and Indian history, not a study of the whole history in mere text-books and epitomes, but of selected periods in the works of great historians, contemporary and modern. But the candidate should have at the same time a bird's-eye-view of one or other of the three great periods into which History might be divided, ancient, mediæval, and modern. Such a conspectus need not be scrappy, if care is taken to prescribe the best available text-books and professors are forthcoming to lecture on them. The writer imagines he has scored a point when he asks me whether I am prepared to lecture from the cuneiform, hieroglyphic or demotic inscriptions. Centainly I am not, and even if I were assured of more than the span of three score years and ten, I should not be tempted to rack my brains over them. But, surely, there are books enough and to spare written by the masters of those that know, in which the results are set forth in a manner to be understood by men of average intelligence like myself, and *a fortiori* therefore of our learned professors. With the help of these books they can lecture on Lenormant or Gibbon, and since it is only a conspectus of the period that is demanded of the candidate, they may possess their souls in patience if they do not know a cuneiform inscription from a hieroglyphic when they see them. The study of the orginal documents is entirely out of place here, since these can only come in in selected periods of English and Indian history.

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* The Editors are in no way answerable for the opinions expressed by Contributors.

Lastly, if the student is to be debarred from a study of the ancient civilizations in Lenormant or of the Middle Ages in Gibbon, what has Professor Muller to offer instead? —the general history of England. He must have a very naive confidence in the disinterested zeal for knowledge on the part of our students, who imagines that with the words "general history of England" staring them in the face they will forswear their allegiance to Bright, in favour of Lecky, Gardiner, and Froude, the authors prescribed by Professor Muller and his colleagues on the History Committee. Is the writer of the article prepared to maintain that the fascinating pages of Lenormant and Gibbon are not infinitely superior to the prosy pages of Bright; that the imagination is not more likely to be roused and stimulated in travelling down the course of the ages with such master-minds for guides than in going over familiar ground with at-best a second rate historian as a Cicerone?

F. K. Banaji.

India Then and Now.

BEING A LECTURE GIVEN AT A MEETING OF THE GUZARAT COLLEGE LITERARY AND DEBATING SOCIETY, AHMEDABAD,

BY GEO. R. TAYLOR, M.A., D.D.

MY esteemed and dear friend, the late Khān Bahādur Edalji Dosābhāi, whose loss to the City of Ahmadābād all who knew him still lament, expressed to me on more than one occasion his grave concern regarding the young men now being trained in our schools and colleges on the lines of Western thought. His opinion evidently was that, in their eagerness to accept the newest importations from the Western world, they paid but scant attention to the lessons conveyed in the history of their own past. He believed that their desire to be so entirely abreast of modern times issued in impatience of the study of earlier days. This neglect of history my good friend deeply deprecated, for he held strongly by the opinion that, just as a picture needs for its true effect a background, so a knowledge of the past is an essential prerequisite to any just estimate of the present. I well remember the sadness in the tones of his voice when he spoke of the educated youth of India as આષાઢી આ આંધળા, "the summer-blind ones." In answer to my enquiry what this term might mean, he explained that the month of Āṣādh, our English June-July, is in this country the month in which the Earth after the first welcome showers of the monsoon bedecks herself in rich garments of green, and so by the આષાઢી આ આંધળા he had meant those who, having had experience of life under only the happiest conditions, fret and chafe against any, even the slightest, inconvenience. Accustomed only to the bright soft green of early spring, they turn with aversion from the sober russet tints of autumn and the long dull stretches of winter's grey. Well! if, as my friend feared, any considerable number of the students of to-day are really આષાઢી આ આંધળા, the more's the pity. There are surely enough already of querulous discontented folk in the world without recruiting them by fresh contingents from the halls of our colleges. In the economy of the universe even persistent grumblers have, I suppose, some place and function, but, whatever good purpose their grumbling may serve, they must surely themselves be the most miserable of men. In the serious battle of life we need a sterner race than whiners, we need men who can stomach the bitter as well as the sweet, and face not only days of sunshine but also those of cloud.

Now it has seemed to me that one of the most effectual means of checking any tendency to this "summer-blindness," lies to our hand in the intelligent study of history. When a man remembers that May with its beauty and fragrance does after all follow close upon March storms and April showers, he cannot be overmuch surprised if even in May the clouds occasionally drop tears or the winds wage a belated war. In like manner, we need not yield ourselves over to mental flutter and confusion, even if we do discern sundry drawbacks that seems to us to militate against the general prosperity of modern times. Blemishes there will be, for naught human is perfect, but we shall view these blemishes more calmly and with a sweeter reasonableness if only we will do the duty that devolves on us as students, and be at pains to acquaint ourselves with the less favored conditions that obtained in days gone by. Or, to revert to our simile of the seasons, if the land have now entered on her month of May, then, in order to a just appreciation of her present position, it becomes imperative to make a retrospect of the country in her March and April, and see whether in those months she experienced the buffetings of wind and rain. This, then, is the subject to which I now invite your attention. As suggestive of a comparison, I have chosen for the title of this paper, *India Then and Now*. The 'then India' I shall make it my endeavour to briefly portray, but on the comparison I shall scarcely touch, leaving that to be drawn by yourselves. It would certainly be interesting to look yet further back, beyond the March and April to the dim December days of the Vaidik age, but I doubt whether such a retrospect would really serve our purpose better; and, in any case, the time-limits necessarily imposed upon this lecture preclude the possibility of here undertaking so ambitious an excursion. We shall, then, content ourselves with instituting an enquiry as to the circumstances of the people and their condition during the century and a half preceding the supremacy of the British rule in India. The enquiry will thus lead us in the main to the period of the great Mughal Emperors of Hindūstān, say from the accession of Akbar to the death of Ahmad Shāh. I shall lay before you a plain unvarnished story of the terrible conditions under which the peasants of India then wore out their weary days, and of their political and social disabilities, a story which, though new perchance to some of my hearers, has yet the merit of being true. In fulfilment of this purpose, I shall merely submit one after another bare extracts, taken for the most part from the best sources now available, namely, the contemporary Muhammadan histories or the testimony of early European travellers in India. That my quotations will be many and varied I cannot admit to be cause for apology, for just upon their number and variety depends any value this paper may possess. We have all of us heard so often of the past glories of this land, of her enormous wealth and resources, of the magnificence of her kings and the prowess of her soldiery, of the bold free life of her people, that reiteration of these topics were surely worse than useless; so suffer me now, if only by way of variation, to hold up before you the seamy side of life in those belauded days of yore, and to unfold a tale of suffering which you and I, if loyal students of history, cannot consent to ignore.

Let me first bring to your notice a matter comparatively slight, to wit, the difficulties that beset a traveller desirous of landing at an Indian port. At the present time of national affliction we have unhappily become familiarised with the restrictions of quarantine, and to many of us it seems a thing grievous to be borne that visitors to this city should be held in detention for four and twenty hours; but what shall one think of detention prolonged to four and twenty days or more, and enforced at a time of public health, merely through the tyranny of custom-house officials? And these vexatious delays were often accompanied by the still more vexatious plundering of one's baggage. William Hawkins, Captain of the ship "Hector," which arrived off the Bar at Surat in August, 1608, tells how Muqarrab Khān, who had no command in Surat, except what regarded the king's customs,

> " to have possession of my goods, took what he
> " pleased, and left what he pleased, giving me such
> " a price as his own barbarous conscience afforded;
> " when thirty-five was agreed giving me only
> eighteen." *Hawkins' Voyages*, (*Hakluyt Society*),
> *pp*. 390, 394.

M. de Thevenot, a Frenchman of gentle birth, who, after completing his studies in the University of Paris, travelled into Turkey, Persia, and the East Indies, has left a detailed and graphic account of the strictness of the search to which in 1665 he was subjected at the custom-house of Surat.

> " Visited we were," he says, "but in so severe and
> " vexatious a manner that, though I did expect it,
> " and had prepared myself for it beforehand, yet I

> "had hardly patience enough to suffer the searchers "to do whatsoever they had a mind to, though I "had nothing about me but my clothes." *Thevenot: Travels into the Indies, p. 2.*

With this as preamble, he proceeds to describe how the passengers were landed in custom-house boats, and conducted into a spacious hall, one after another, and but one at a time. There the searchers

> "feel his body all over, and handle every the "least inch of stuff about him with all exactness; "if they perceive anything hard in it, they im-"mediately rip it up, and all that can be done "is to suffer patiently . . . It was my good fortune "to be examined with the first. Though I had "no merchant goods, yet all was searched: my "quilt was ripped up; they undid the pommel of "one of my pistols, with pegs of iron felting "the holsters; and the clerks at length being "satisfied with the view of my things, I was let "go, and paid only custom for my money. It "was no small fortune for me to be so soon "despatched, for men may wait sometimes a month "before they can get out their baggage." *Ibid., pp. 2, 3.*

Sir Thomas Roe, the ambasssdor from king James I. of England to the court of Jahāngīr, had not, it would seem, Thevenot's good fortune. Having landed, also at Surat, on the 26th of September, 1615, he says,

> "Much controversy was about searching my ser-"vants, but at length they passed free to the city, "where we went into a house provided for us, and "there continued till the 30th of October"—thus, you will note, five weeks in all—"suffering much "from the Governor, who by force searched many "chests, and took what he thought fit." *Pinkerton, VIII. 5.*

Turn we now from the subject of quarantine to that distressing visitation which has so recently rendered the imposition of quarantine inevitable, the dreaded Plague. Regarding it the wildest statements have of late gained currency, and some would have us believe that now for the first time has this scourge fallen on the land. The slightest acquaintance, however, with the early histories and travels suffices to remove so erroneous a conception. From these I have been able to glean reference to the

Plague as being epidemic in India in or about each of the following years :—

1345 (Ibn Batuta: Lee's translation, pp. 147, 148).
1399 (Elliot: Hist. of India, Edited by Dowson, IV. 36).
1438 (Bayley: Hist. of Gujarāt: pp. 123, 124).
1574 (Dowson's Elliot, V. 384, 395).
1595 (Dowson's Elliot, VI. 193).
1611-18 (Terry: Voyage to East India: 226, 227; Dowson's Elliot, VI. 405-407).
1683-93 (Ovington: Voyage to Suratt; 347-349; Dowson's Elliot, VII. 328, 337; VIII. 36).
1704-7 (Dowson's Elliot, VII. 566; VIII. 36).
1770 (Bombay Gazetteer: IV. 220).
1812-21 (Trans. Bombay Literary Society, I. 326, 327).
1836-38 (Bombay Gazetteer: IV. 223-225).

Of three of these outbreaks, those of 1611-18, 1683-93, and 1812-21, considerable details have come down to us. The author of the Ikbāl-nāma, Nawāb Mu'tamad Khān, a paymaster in the army of the Emperor Jahāngīr thus describes the awful virulence of the plague of 1611-18.

> "When it was about to break out, a mouse would "rush out of its hole as if mad, and, striking itself "against the door and walls of the house, would "expire. If immediately after this signal the occupants left the house and went away to the jungle; "their lives were saved; if otherwise, the inhabitants of the whole village would be swept away "by the hand of death. If any person touched "the dead or even the clothes of a dead man he also "could not survive the fatal contact. The effect of "the epidemic was comparatively more severe upon "the Hindūs. In Kashmīr its effect was so great "that (as an instance) a darwīsh who had performed the last sad offices of washing the corpse "of a friend the very next day shared the same "fate. A cow, which had fed upon the grass on "which the body of the man was washed, also died. "The dogs also, which ate the flesh of the cow, "fell dead upon the spot. In Hindūstān no place "was free from this visitation, which continued to "devastate the country for a space of eight years."
> *Dowson's Elliot*, VI. 406.

In 1618 A. D. the Emperor Jahāngīr congratulated himself that by prolonging his stay in Ahmadābād he had avoided the plague then raging at Agrā. In the *Waqi'at-i-Jahāngīrī* he writes,

> " The Almighty God always and in all places has
> " extended His assistance and protection to this His
> " humble creature, and this is shown from the fact
> " that at this very time it was reported to me that
> " a pestilential disease had broken out in Agra,
> " and numbers of men had perished. For this reason
> " I was fully confirmed in my resolution of post-
> " poning my march towards Agrā, which occurred
> " to my mind by the Divine inspiration." *Dowson's Elliot*, VI. 357.

One cannot help feeling that the inspiration would have been more justly called "divine" had it led the Emperor not away from but into his plague-stricken capital. Sufficiently striking is the contrast between the views entertained as to the duties of a ruler in the 'India then' and the 'India now.' In 1618 the plague assails Agrā; Jahāngīr of set purpose stays away, and speaks of this his inaction as prompted by a "Divine inspiration." In 1896 the plague assails Bombay and Poona: Lord Sandhurst hastens to those cities, meets the local authorities, concerts with them remedial measures, and says just nothing at all about the good work he has done. But if Jahāngīr thought to escape the plague by remaining on in Ahmadābād he was mistaken, for not long after the Emperor's arrival the Plague came too. Jahāngīr now thoroughly alarmed and disgusted, sought relief for his feelings by heaping bad names on the city in its day of sore affliction, calling it, with other opprobrious appellations, *Bīmāristān*, 'the abode of sickness,' and the untranslatable *Jahannamābād*.

It so happens that for several months of this very year 1618, the English ambasssador, Sir Thomas Roe, was resident in the city, and his worthy chaplain, Edward Terry, has given us a vivid description of the terrible ravages of the plague. In his "*Voyage to East India*," he writes,

> " The city Amadavar (at our being there with the
> " king) was visited with this pestilence in the month
> " of May (1618) and our family was not exempted
> " from that most uncomfortable visitation; for
> " within the space of nine days seven persons that
> " were English of our family were taken away by
> " it, and none of those which died lay sick above
> " twenty hours, and the major part well and sick
> " and dead in twelve hours. As our surgeon (who

> "was all the physician we had), and he led the way, "falling sick at midday, and the following midnight "dead. And there were three more that followed "him one immediately after the other, who made "as much haste to the grave as he had done; and "the rest went after them within that space of time "I named before. And all those that died in our "family of this pestilence had their bodies set all on "fire by it, so soon as they were first visited; and, "when they were dying and dead, broad spots of a "black colour appeared on their breasts, and their "flesh was made so extreme hot by their most high "distemper that we who survived could scarce "endure to keep our hands upon it. It was a most "sad time, a fiery trial indeed, all our family (my "Lord ambassador only excepted) being visited "with this sickness." *Terry*: 226-227.

It is remarkable that while the plague of 1618 was thus so fatal among the English in Ahmadābād, those in Surat had complete immunity from it during the epidemic of 1683-93. This fact is specially mentioned by Mr. Ovington, a chaplain who came out to India in the vessel that brought tidings of the accession of William of Orange and Queen Mary. He writies,

> "Above a hundred Gentiles were carried out of the "gates of this city one morning to be burnt, besides "the Moors which were carried off by the plague, "and those of both castes which died in the "suburbs; which by a very modest calculation will "amount to the number of three hundred a day "......But that which creates the greatest admiration "in the Moors, and not a little joy in the English, "is our escaping all this while the direful influence "of this mortal disease, so that not one Englishman "was ever yet affected by it." *Ovington*: *Voyage to Suratt*: 347-9.

A glimpse of this same plague, as it stalked through the Deccan, is given us in Khāfī Khān's highly esteemed history, the *Muntakhabu-l Lubāb*. You will observe how closely the symptoms he describes agree with those noticeable during the present outbreak. Writing of the year 1689 A.D., he says,

> "The plague and pestilence which had for several "years been in the Deccan as far as the port of "Surat and the city of Ahmadābād, now broke out "with violence in Bijāpur and in the royal camp.

> "It was so virulent that when an individual was "attacked with it he gave up all hope, and thought "only about his nursing and mourning. The black-"pated guest-slayer of the sky sought to pick out the "seed of the human race from the field of the world, "and the cold blast of destruction tried to cut down "the tree of life in every living being, and to re-"move every shoot and sign of life from the sur-"face of the world. The visible marks of the plague "were swellings as big as a grape or banana under "the arms, behind the ears, and in the groin, and a "redness was perceptible round the pupils of the "eyes. It was the business of heirs to provide for "the interment of the dead, but thousands of ob-"scure and friendless persons of no property died "in the towns and markets, and very few of them "had the means of burial. It began in the 27th "year of the reign, and lasted for seven or eight "years." *Dowson's Elliot*, VII. 337.

From a comparison of references it would seem that this plague broke out in epidemic form in Surat about the year 1683, raged there with more or less of virulence till 1690, and for still three years longer wrought its work of devastation in the Deccan. Thus for full ten years, and perhaps even more, it was prevalent in one part or another of the Bombay Presidency.

In the year 1707 the Deccan, and especially Burhānpur, was again the scene of the plague. The Tārikh-i-Bahādur Shāhī written in 1747 A.D., records that when that Monarch was marching against Kām Bakhsh,

> "a severe pestilence broke out amongst the royal "troops. Those attacked suffered from such un-"natural heat that they generally died in the course "of a week; and those who lived longer than a "week, after undergoing great pain and torment, "recovered. Twenty rupees was the hire paid to "the porters for carrying a sick man for a march "of three *kos*. Pioneers were sent on ahead of the "camp to dig graves, and when the army reached "its new camping-ground, the tents were filled on "one side and graves upon the other." *Dowson's Elliot*, VII. 566.

The plague of 1811-12, known as the great Jhālāwār sickness, was in the early part of its course most fatal in Ahmadābād. Captain, afterwards Major-General Sir James, Carnac wrote in 1815,

> "The mortality at Ahmadābād is computed at "100,000 souls, a number equal to one-half of the "population. The demand for wood to burn the dead "called for the destruction of the houses, even this "was barely sufficient...and the half consumed bodies "on the banks of the Sābarmati evince at this hour "to what straits the Hindūs were reduced in fulfilling "the last duties to their kindred. It is worthy of "remark that latterly the females were engaged in "removing the dead and committing them to the "funeral pile. The urgency must have been extreme "to have induced this departure from usage in "rites held in sacred estimation." *Trans. of the "Lit. Soc. of Bombay*, 1877 Reprint, I. 326, 327.

The sad experiences through which this country has recently been called to pass have done much to confirm the popular opinion that plague is intimately connected with famine. The word *famine* still spells ruin and death to many, but we can now have but a faint conception of all the horrors it formerly brought in its train. The Satyāsīo Kāl (સત્યાસીઓ કાળ) or famine of Samvat 1687 (1631-33 A.D.) reduced the inhabitants of Gujarât and the Deccan to dire extremity. The following description of the distress is taken from the *Bādshāh Nāmā* of Abdul Hamīd, written about the year 1650.

> "Life was offered for a loaf, but none would buy; "rank was to be sold for a cake, but none cared for "it. For a long time dog's flesh was sold for goat's "flesh, and the pounded bones of the dead were "mixed with flour and sold. Destitution at length "reached such a pitch that men began to devour "each other and the flesh of a son was preferred to "his love." *Dowson's Elliot*, VII. 24, 25.

Harī Charan Dās, writing in the latter part of last century, tells of the terrible famine of 1770 that,

> "in places where four maunds of grain had been "sold for a rupee, even four seers were not then to "be obtained for the same money. Consequently "many persons died of hunger. It is said that in "Bengal and Azīmābād about 37,00,000 men were "starved to death, and many sold their sons and "daughters for grain, or for four or eight annas a "piece." *Dowson's Elliot*, VIII. 228, 229.

In his "*England's Work in India*," pp. 22-25, Sir William Hunter thus graphically portrays the awful picture.

> "All through the stifling summer of 1770 the people "went on dying. The husbandmen sold their cattle, "they sold their implements of agriculture, they de- "voured their seed grain, they sold their sons and "daughters, till at length no buyer of children could "be found; they ate the leaves of the trees and the "grass of the field, and in June, 1770, the Resident "at the Darbār affirmed that the living were feeding "on the dead. Day and night a torrent of famish- "ed and disease-stricken wretches poured into the "great cities. The streets were blocked up with "promiscuous heaps of the dying and dead. Inter- "ment could not do its work quick enough; even "the dogs and jackals, the public scavengers of the "East, became unable to accomplish their revolting "work, and the multitude of mangled festering "corpses at length threatened the extinction of the "citizens. Two years after the dearth, Warren "Hastings made a progress through Bengal, and "he deliberately states the loss to have been 'at "least one-third of the inhabitants,' or probably "about ten millions of people. Nineteen years "later the next Governor-General, Lord Cornwal- "lis, had still to report to the Court of Directors that "one-third of the Company's territory in Bengal "was 'a jungle inhabited by wild beasts'."

From the above extracts it is abundantly evident that not in recent times alone has this country known the ravages wrought by famine and plague. The India of two hundred years ago and the India of to-day have alike experienced these terrible afflictions: but the then Government of India did not, whereas the present Government of India does, seek to do battle against them and mitigate their attendant evils. One honourable exception, indeed, I find recorded in the *Bādshāh Nāmā*, where it is stated that, during the Satyāsīo Kāl,

> "Want of rain and dearness of grain had caused "great distress in many countries. So under the "direction of the wise and generous Emperor (Shāh "Jahān) taxes amounting to nearly 70 lacs of rupees "were remitted by the revenue officers." *Dowson's Elliot*, VII. 25.

But, so far as I am aware, on no other occasion did the Mughal Government intervene to lighten the burden of the sufferers from famine. Though ten millions of peasants perished in the summer of 1770, only £9,000 were distributed to aid the starving population of Bengal. In bright contrast to this stands out the action of the British Government which, in the much milder Bengal scarcity of 1874, spent close on four crores of rupees, and, during the five years ending 1878, devoted over fourteen crores in feeding its people during famine. Equally munificent have been the operations of the State for relief of the distress in India during the last two years. From the Government Resolution published at Calcutta on the last day of the old year (Dec. 31, 1897) we learn that,

> "The Government of this country have incurred a "direct expenditure of between seven and eight "crores of rupees. They have distributed about "two more in the shape of loans for the construc-"tion of wells, for the purchase, of seed and bullocks, "and for other agricultural purposes and they have "suspended over two crores of land-revenue, of "which a substantial portion will not be recovered."

This public expenditure has been supplemented by private charity of the most splendid nature. The contributions received by Government amounted to an aggregate of Rs. 1,65,36,000 of which 29 lakhs came from India itself, 1 crore and 22 lakhs from Great Britain, 11 lakhs from the British Colonies, and 2½ lakhs from foreign countries. Such is the honourable record of the India Now, but one will look in vain for the like in the India Then.

And what do the histories of two centuries ago tell of preventive and remedial measures taken by Government in times of plague? They tell absolutely nothing. Though the victims died off by the thousand and the ten thousand, yet the Government of that day with its overflowing treasury simply looked on and did nothing. It was reserved for another Government to proclaim, 'Our people shall *not* die of plague—so help us God,' and for another age to witness officers, inspired only by the dictates of humanity, wearing out their hearts and working out their lives on plague-duty. "On Plague duty"—the phrase itself is new to India, ay, and it was reserved for the year of grace 1897 to see a civil officer in his unflinching devotion to that duty calmly hold on at the post of danger till done to death by the hand of an assassin. Such is the India Now, but such was not the India Then, for the pages of her history afford no parallel to service so nobly rendered, however, ignobly rewarded. And again those pages breathe not a word of what we in these happier days have been privileged to see, gentle ladies of culture nursing the patients in plague hospitals, and sacrificing life itself in this their holy ministration. Truly in the

Golden Book of the Annals of Heroes the year 1897 will not be a blank.

Let us now proceed to review, and briefly, the more normal condition of India when in the days of the Mughal Emperors the land was free from plague and famine. In recent times many an essay has been published under such sensational titles as "The Drain on India," "India Bleeding to Death." I am not anxious to combat here and now the position taken by the writers of those essays, for the scope of the present paper leads me rather to the enquiry whether in India's earlier days there was anything analogous to that so-called "bleeding" which many now-a-day so loudly decry. By "bleeding" one means, of course, in this connection, loss of national wealth, and it is practically immaterial whether the wealth be lost by being sent out of the country or by being literally buried beneath its soil. He who—and I beg your attention to the statement—he who by excessive hoarding of treasure and ornaments causes capital to lie idle stands thereby convicted of blood-letting from India's veins. Now in this matter of blood-letting the Mughal Emperors and nobles would seem to have been sinners above all men. Shāh Jahān displayed a most notable talent for hoarding money. Father Catrou, depending largely on Manuscripts left by the Venetian Manouchi, who was for forty years physician to Aurungzīb, writes,

> "The Emperor (Shāh Jahān) began to grow old, "and his passions changed with his age. Avarice "succeeded profuseness. We may venture to say "that it equalled all his other vices and even sur-"passed them. To keep the immense riches the "more securely which his tributes and exactions in-"creased daily, he had two deep vaults dug in his "palace of Delhi, supported by huge marble pillars. "In one he laid up his gold in mighty hoards, and "in the other kept his silver. To make the carry-"ing away any of his treasure the more difficult he "took care to have both the silver and the gold "coined into pieces of so prodigious a bigness that "they could be of no use in trade. Shāh Jahān "spent a great part of the day in those vaults under "pretence of the coolness of them, but in reality, to "feast his eyes with those vast heaps of riches."
> *Catrou's Manouchi, pp.* 232, 233.

It is significant that at the sack of Delhi in 1739 Nādir Shāh found in the Imperial treasury, and seized as prize of war, 28½ crores worth of jewels, ornaments, and plate, 2½ crores of specie, but only one crore of current coin. Again, when in 1757 the treasury of Bengal fell into the hands of the English, it was found to contain less than 6 lakhs of rupees, but specie and jewels worth more than 140 lakhs.

The magnificence of Eastern display was probably never more strikingly illustrated than in the construction of the famous Peacock Throne, commenced by Tamerlane in the 14th century and completed by Shāh Jahān in the 17th. Those who kept the accounts of the king's jewels and of what this great work had cost assured the French jeweller, Tavernier, about the year 1660, that it amounted to 1,070 lakhs of rupees, or at the rate of exchange at that time, some £12,037,500. This throne, carried away by Nādir Shāh to Persia, is still to be seen at the Shāh's palace at Teherān, and though its chief jewels have been long since dispersed, its value even now is estimated at £2,600,000.

In his *Autobiographical Memoirs* Jahāngīr mentions that in front of the hall of general audience was erected a balustraded stage of gold, which he proceeds to describe. To this description the English translator, Major Price, appends the caustic note,

> "At 28lbs. to the maund, this would make the "trifling quantity of 37½ tons of gold." *Jahāngīr's Aut. Memoirs, p.* 121.

While the Emperors were in this wholesale fashion complacently "bleeding India," rendering the national wealth unproductive, it is not surprising to learn that the imperial establishments were maintained on so luxurious a scale as to necessitate an enormous current expenditure. Catrou estimates the expense of the Emperor's seraglio, or inner palace "wherein the great Turk meweth up his concubines," peopled as it was by above two thousand women, at more than fifteen millions yearly; nor will this figure seem excessive to any who have read his description of the Mughal Zanānā, closing, with the words, "the reader will doubtless here fancy himself transported into a fairy land, where all is pearl and diamonds; but the description we have given comes very much short of the truth." *Catrou, pp.* 329-331.

But the Great Mughal, not content with squandering fifteen million rupees yearly on his harem, must have spent at least another round fifteen million on his elephants. Jahāngīr makes the boast that the establishment of elephants which his father had formed

> "never was, and never will be, equalled by any "earthly sovereign," adding that "it comes not "within the limits of ordinary calculation that any

> "one will be able to bring together 12,000 elephants "of the largest class, with no less than 20,000 of "another class, and provide forage and pro- "vender for them at a daily expense of four lakhs "of rupees." *Jahāngīr: Aut. Mem.* 45, 46.

If these figures be correct, which, however, I gravely doubt, the annual bill to be paid would not be fifteen million rupees but nearly ten times that sum (Rs. 146,000,000).

In referring to the various disbursements that go to drain the Emperor's treasure and put him upon immense expenses, Ovington makes special mention of the maintenance of four or five hundred elephants, and adds,

> "The principal of all his stately campaign-elephants "has a stated extraordinary allowance of sugar "mixed with provender, and jaggary rack, which is "a kind of *Aqua Vitæ*, with his water, which con- "sumes the Mughal five hundred rupees every "month, that is near £60 sterling." *Ovington: Voy. to Surat*, 191, 192.

Catrou counts the Mughal's elephants at five hundred—an extremely low figure—yet the keep of even these, reckoned at his own estimate, would come to forty-five lakhs of rupees a year. In these days when complaints are made in certain quarters as to the salaries paid to the Indian Civil Servants, it may be well to note, if only in passing, that these five hundred elephants of Aurangzīb's, most of them merely ornamental, cost the country every year more by some ten lakhs than all the salaries and allowances of all the covenanted civilians in all the Bombay Presidency.

Inasmuch as the expenditure at the Mughal court was so exorbitant and at the same time the accumulation of stored, or unproductive, wealth so prodigious, it became an absolute necessity to impose heavy burdens of taxation on the people. The net land-revenue demand of the Mughal empire during the century from 1655 to 1761 A.D. averaged £32,000,000. From the very much larger area of British India the revenue raised in 1895-96 amounted to 26 crores and 20 lakhs, or, at the rate of exchange ruling in that year, slightly less than £15,000,000. And, be it remembered, the Mughal levied in addition to the rent for land not less than forty imposts of a personal character, taxes upon religious assemblies, taxes upon marriages, taxes upon trees, taxes upon cattle, and, abhorred most of all, a poll tax. Sir Wm. Hunter writing in 1881, could state that,

> "For the purposes of this last tax, the non-Muham-

> "madan population was divided into three classes, "paying respectively £4, £2, and £1 annually "to the exchequer for each adult male. The lowest "of these rates if now levied from each non-"Musalmān male adult would alone yield an "amount exceeding our whole Indian taxation."
> *England's Work in India: p.* 107.

In 1695 Aurangzīb raised a revenue of £80,000,000, so that the burden of taxation could not then have been less than six rupees per head of population. Two centuries later, in 1895-96, it was approximately just two rupees five annas per head. It is this extremely low figure that renders the problem now placed before the Indian Finance Minister so difficult of solution. He is ever being called upon to bring the Indian administration up to the English standard of efficiency, but those who voice this demand, and at times with such insistence, seem to have conveniently overlooked the fact that the English rate of taxation is not some two and a half *rupees* a head, but some two and a half *pounds sterling.*

Incredible as it may seem to us of to-day, the Mughal Emperor constituted himself sole heir of all his subjects. Sir Thomas Roe is most explicit in his statements regarding their inability to bequeath away their property.

> "In revenue," he writes, "the Monarch doubtless "exceeds Turk or Persian or any Eastern prince: the "sums I dare not name, but the reason. All the land "is his, no man has a foot. All men rise to greater "and greater lordships as they advance in favour, "which is got by frequent presents rich and rare. "The Mughal is heir to all that die, as well those that "gained it by their industry, as merchants, &c., as "those that live by him. He takes all their money, "only leaving the daughter and widow what he "pleases. To the sons of those that die worth two "or three millions, he gives some small lordship to "begin the world anew." *Pinkerton,* VIII. 45, 46.

Nor did the Emperor always defer seizing the possessions of his subjects till their death.

> "The recompenses the Emperor gave the princi-"pal officers of his court and Army consisted," so Catrou assures us, "in the privilege he allowed "them of oppressing the people without control. "So fast as the Umrāvs grew bloated by their "extortions, the emperor enriched himself by their "spoils and appropriated to himself all the fruits of "their usurpations." *Catrou, p.* 232.

Of the same tenor is the following statement by Mandelslo :—

> "The children have no hope to enjoy "aught of their fathers' estates, either real or "personal. For the Mughal's authority is such, "and his power so absolute, that the estates of all "his subjects are at his disposal, and thence it "comes that only his will decides all differences "arising among them, they having no other law "than implicitly to submit to what he ordains. He "hath the absolute disposal of their lives and "fortunes, and thence it is that upon his mere "order and command, the greatest lords are dragged to execution, and their estates, charges, and "governments taken away from them." *Mandelslo: Travels into the Indies, p.* 49.

Let us now see whether any considerable portion of the immense treasures thus amassed was utilised for the protection of the life and property of the subject. Of the general insecurity throughont the country, and the particular dangers to which travellers were exposed in Gujārat, there is abundant evidence. Of the year 1608 William Hawkins writes,

> "The country is now so full of thieves and out-"laws that one can hardly stir out of doors in any "part of these dominions without a guard." *Dowson's Elliot,* VI., 495.

William Finch, who was in Surat at the same time as Hawkins, declares that,

> "From Gelour (? Jālor) to the city of Ahmadābād "the way lies all through a horrid desert full "of lions and tigers, thieves and outlaws, which "may well be reckoned amongst those creatures of "prey, and are by far the worst beasts of the number." *Harris,* I. 89.

The Emperor Jahāngīr himself, who, one would think, might have wished to keep silent on a matter so discreditable to his own government, blurts out the plain truth in his *Autobiographical Memoirs.* Speaking of the province of Gujarāt, he says,

> "In the midst of its numerous population it "contains an enormous proportion of thieves and "vagabonds of every description, so inured to rob-"beries and violence as not to be deterred from "their profligate habits of life by the severest "measures that I could devise ; not even "though I have occasionally ordered two and three

> "hundred a day to be cut off by various modes of "execution. From these circumstances, so notori- "ous has been the insecurity of the roads in "Gujarat, that a native of that seat of the Muses, "Shirāz, on one occasion, on his arrival at Agra, "gave vent to his feelings in these lines, 'I have "traversed through the blessing of Him who to "none is accountable roads of which the soil is "saturated with human blood. Well may he be "said to have obtained a renewal of life who had "escaped, a living man, from the perils of "Gujarāt.'" *Jahāngīr, Aut. Memoirs, p.* 117.

Nor was this insecurity of life peculiar to Gujarāt alone, for on Jahāngīr's own showing, througout his Empire rebellion and bloodshed were terribly prevalent. He frankly declares that,

> "Notwithstanding the frequent and sanguinary exe- "cutions which have been dealt among the people "of Hindūstān, the number of the turbulent and "disaffected never seems to diminish. For, what "with the examples made during the reign of my "father, and subsequently of my own, there is "scarely a province in the Empire in which, either "in battle or by the sword of the executioner, five "and six hundred thousand human beings have not "at various periods fallen victims to this fatal "disposition to discontent and turbulence." *Ibid., p.* 128.

How strange all this sounds to us who for now forty years have enjoyed the Pax Britannica, that universal peace, which for the first time in all the ages the British Government has since 1858 given to the peoples of India! Internal disturbances are now a thing of the past. Banditti are unknown, for the wild hill tribesmen are to-day employed as soldiers in the army or as border police. Thanks to the special department created by Government for the suppression of thagī and dakaitī, hereditary stranglers and gang-robbers have lost their ancient profession. Piracy having passed away, the Indian Navy has been for years disbanded. Life would be without its luxury if we did not think we had some grievance, so now, for lack of any better cause of complaint, we have taken to grumbling at the Frontier Wars. Well! midst all our grumbling let us not forget to be thankful that war is no longer at our very doors but is now waged only on Trans-Himālayan frontiers. May I not safely affirm that not one of us here present ever heard a single shot fired in anger and that millions in the rural districts of this province will live out their threescore years and ten without having ever seen the face of a soldier?

But in the India of two hundred years ago it was not the soldiery alone whom the people had reason to fear: it was the irresponsible tyrant on the throne, and the governors vested by him with absolute power of life and death. It was Akbar who created the office of Court-Poisoner; and in Aurangzīb's reign frequent mention is made of the fatal "*poust*," a decoction of poppy.

> "A large cup of this beverage," Bernier writes, "used to be brought early in the morning to the "princes confined in the fortress of Gwālior, and "they are not given anything to eat until it be "swallowed. They would sooner let the princes die "of hunger. This drink emaciates the wretched "victims who lose their strength and intellect by "slow degrees, become torpid and senseless, and "at length die." *Constable's Bernier, pp.* 106, 107.

Of the cruelties perpetrated by Akbar's son and successor, the passionate Jahāngīr, a terrible catalogue, filling eight pages, is given in the Sixth Volume of Sir Henry Elliot's invaluable "*History of India as told by its own Historians.*" It was this Jahāngīr who revived the barbarous impalements and flayings alive which had been almost forgotten. Sewing the eyelids together was a favoured mode of punishment, as also fastening the culprit inside the skin of a newly-killed animal—as the skin dried the victim perished.

William Finch, in his "Travels," of date 1611, writes,

> "The king's manner of hunting is thus:—About "the beginning of November he goes from Agra, "accompanied by many thousands, and hunts all "the country for thirty or forty *kos* round about, "and so continues till the end of March, when the "great heats drive him home again. He causes a "tract of wood or desert to be encompassed about "by chosen men, who contract themselves to a near "compass, and whatever is taken in this enclosure "is called the king's shikār, or game, whether *men* "or beasts, and whoever lets aught escape loses his "life, unless pardoned by the king. All the beasts "thus taken, if man's meat are sold, and the money "given to the poor. If men, they become the king's "slaves, and are sent yearly to Kābul to be bartered "for horses and dogs." *Dowson's Elliot,* VI. 516.

The following is the picture, drawn by Sir Thomas Roe, of a terrible scene, enacted at Jahāngīr's Darbār on the 25th of October, 1616 :—

> " The king returned to Court, having been far gone
> " overnight in wine. Some, either accidentally or
> " maliciously, spoke of the last merry night, and
> " that many of the nobility drank wine, which none
> " must do without leave. The custom is that when
> " the king drinks, which is alone, sometimes he will
> " command the nobility to drink after him, which if
> " they do not, it is looked upon as a crime ; and so
> " every man that takes a cup of wine of the officer
> " has his name writ down. The king, not remem-
> " bering his own command, called the *Bakhshi,* and
> " asked whether he gave the order, who falsely
> " denied it. The king then called for the list, and
> " persons named in it, and fined some one, some
> " two, and some three thousand rupees, and some
> " that were near his person he caused to be whip-
> " ped before him, they receiving 130 stripes with a
> " terrible instrument having at the ends of four
> " cords irons, like spur-rowels, so that every stroke
> " made four wounds. When they lay for dead on
> " the ground, he commanded the standers-by to
> " spurn them with their feet, and after that the
> " porters (door-keepers) to break their staves upon
> " them. Thus most cruelly mangled and bruised,
> " they were carried out : one of them died on the
> " spot." *Pinkerton*, VIII. 22.

In his *Autobiography* Jahāngīr not only tells with evident *sang froid* how four thousand Rajpūt prisoners had by his command been thrown to the elephants to be trampled to death, but also expatiates on his clemency in not having extirpated the whole tribe in all its branches (*Jahāngīr : Aut. Memoirs :* p. 40).

As illustrating the cruel punishments that could be inflicted according to the whim of even a provincial Governor, Mandelslo tells the following story of Azam Khān, Viceroy of Gujarāt from 1635 till 1642. Nicknamed the Udhāī (ઉધાઈ), or "white ant," from his inordinate love of building, it was this same Governor of Ahmadābād who in 1636 erected, originally as his palace, the imposing structure, to the south-east of the Bhadar, now used as a Post Office. Here then is Mandelslo's stroy.

> " One day having invited the two chief directors
> " of the English and Dutch to dinner, and desirous
> " to give them the diversion of the women-dancers,

> "they came accordingly, who, according to the "cadence of the haut-boys and timbrels, danced "with great activity through hoops, with great "variety of postures. Which done, the Governor "sent for another band of the same gang. But "those, being employed elsewhere in the city, sent "an excuse that, being sick, they could not come. "But the Khān not thus contented, he sent a "second time, ordering his servants to bring them "along with them, who returning without them "upon the same pretence, he ordered them to be "cudgelled immediately. These poor wretches, "finding themselves in such danger, cast themselves "at the Khān's feet, acknowledging that it was "not any sickness but the hopes of lucre that had "made these women refuse to obey his commands, "that they denied to come because they knew well "enough he would not pay them. At which he "laughed, but immediately sent some of his guards "to fetch them, who no sooner had brought them "into the room, but he ordered their heads to be "struck off. They begged their lives with horrid "cries and lamentations, but he would be obeyed, "and caused the execution to be done in the room "before all the company, not one of the lords then "present daring to make the least intercession for "these wretches, who were eight in number. The "Governor, perceiving that the strangers were "startled at this severity, fell a laughing, and told "them that, if he should not by such examples "maintain his authority, he should not be long "governor of Ahmadābād." *Harris*, II. 116. (See also *Talboys Wheeler: Early Records of British India : pp.* 27-28.)

That atrocity, Gentlemen, was perpetrated in this very city of Ahmadābād in the year of grace 1638.

And now, as illustrating how times have changed, let me recall an incident which will doubtless be in the memory of some here present. Two or three years ago a very junior member of the Civil Service of India was so foolish as to have a peon's moustache shaven off because of some slight offence. This act of petty tyranny, which under former governments would have merely provoked a passing smile, resulted in the young autocrat's summary dismissal from the Service.

Cases like the last two prompt the inference that now-a-days more consideration is paid to the hair of a man's head than was in Mughal times accorded to life itself. Further than that it would seem impossible, as indeed it is unnecessary, to go in pointing the contrast between India Then and India Now.

Thus, Gentlemen, I have finished the task I set myself. I thank you for the attention you have given me in my imperfect treatment of a subject which cannot but have strained your patience. It is a pleasure to me to have had, through the kind invitation of your President, the able Principal of this College, an opportunity of laying before you so many statements of fact taken from the writings of men who were in most cases eye-witnesses of what they record. To every thoughtful mind their combined testimony must compel the conviction that in India the British Government is the only Government within historic times that has laboured to mitigate the calamities of famine and plague, the only Government that has ever given the peoples of this land security of life and property, that has ever reduced their burthens, fostered their trades, and attempted with no inconsiderable success to ameliorate their condition.

The London "*Times*," in an article on last December's meeting of the Indian National Congress, spoke the simple truth when saying,

> "The contrast between the India of to-day and the "India of the period before the establishment of "British rule is the contrast between good govern-"ment and bad. . . . There are, it is true, "visitations such as those which have afflicted India "during the present year, with which even the best of "human efforts in the present state of science can "cope but imperfectly. There may be matters in "many branches of government where further "progress may be made on the old lines, or where "better results may be obtained by the cautious ad-"option of new principles. But, on the whole, her "British rulers have not only liberated the masses "of the peoples of India from some of the worst "despotisms which ever flourished even on the rank "soil of Asia, but they have ruled her more wisely, "more justly, and more successfully than any de-"pendency ever was ruled before."—*The Times, Dec.* 30, 1897.

Ahmadābād, January, 1898.

An Apology for Dialect.

BEING AN ACCOUNT OF THE ENGLISH DIALECT DICTIONARY, EDITED BY PROF. JOSEPH WRIGHT, AND PUBLISHED AT THE CLARENDON PRESS, OXFORD.

LITTLE apology is needed, perhaps, for introducing the subject of Dialect, and from thence the subject of the English Dialect Dictionary, at the present time. The strong interest felt in the language of the people—above all of the rural and agricultural people—is manifested in the number of works published—poetry, fiction and descriptive prose, full of the racy, expressive speech of some particular dialect. Dialectical literature may count among its creators, such names as Ramsey, Burns, and Tennyson, as Scott, George Eliot, Stevenson, Barrie, Hardy, Baring Gould and many others of renown.

But there are other reasons for an interest in dialect than the present demand for strict local colour from our writers. It is a well-known common place that we value most those things which we are on the point of losing. Now that is exactly the case with the Dialects. Like everything else, they "have their day and cease to be." Originally co-equal with the standard literary language, which, like them was but the speech of one particular district, from various political and social causes they have become subordinate, while the peculiarities of their fellow-dialect have been diffused over the whole country. For a time each dialect continues to develop on its own lines, retaining its old characteristics, but spoken by the uneducated alone, and preserved, for the most part, orally, so that its divergence from the literary language becomes more marked. Development, however, is only possible so long as it is unaffected by external influences. With the advance of civilisation, the growth of commerce and spread of education, the increased facilities of communication from one part to another, and the rise of large manufacturing towns, draining the country around of the old rural and agricultural class, the language of the educated spreads gradually throughout the country, and the natural growth of dialect is checked. First to disappear are individual words, being replaced to some extent by slang and colloquial expressions, common to all districts. Differences of pronunciation last longer, having their origin in physical and climatic causes.

Such is the history of the English dialects. The East Midland dialect of the 13th and 14th centuries, having been adopted as the standard literary language by the end of the 15th and the 16th century, the old Northern, West Midland, Kentish and South-West dialects with their many sub-divisions received a check, and, relegated to the back ground, continued to develop quietly on their own lines during the 16th, 17th and 18th centuries. Many characteristic distinctions of middle English times can still be traced, notably the change of *s* to *z* and *f* to *v* in the West, while older forms such as *effet* and *emmet*, an ant, and *ky* the plural of cow, now obsolete in literary English, have been preserved.

During the 19th century, however, civilisation has been exercising its levelling hand upon all such varieties of speech. Above all the invention of railways and steamers, a cheap system of postage, and the rise of the "tourist" class, penetrating into even the most remote spots, have caused the decay of the dialects. Words found in glossaries of the 18th century, which had survived from the times of middle English, are now no longer understood in the districts to which they belonged. In another hundred years, the language of the townsman, that is literary English adulterated by slang, will become universal.

If any effort, therefore, is to be made to preserve dialect in its present condition, it must be made now before it is too late.

Such an effort has been made within the last thirty years, and, so far as can be prophesied, with consider ke success. It is due not to the novelists, "Kailya or otherwise, not to the antiquarians and fol orists, interested though they may be, but to the p ologists. Dialect is of value not only to the studen of life and manners, but also to the student of lang age, of that science of sounds and forms, which proves so fascinating a study to some minds, so dry-as-dust to most. Whoever would understand fully the developmen of the English language during the past four hundr years, above all the natural development of sounds and orms, unaffected by the influences of printing, of b a of a fixed standard of spelling, must study the alects.

The chief name connected with he beginning of this movement, this attempt to reduce to print and thus preserve many thousands of words spoken constantly among the people but seldom written, is that of the Rev. Prof. Walter Skeat. A few incomplete glossaries of certain districts are to be found even at the beginning of the 18th century, such as John Ray's collection of North and South country words published in 1691. A hundred years later in 1790 Grose published his Provincial Glossary while it was not until Jamieson's Dictionary of Lowland Scotch appeared in 1808 that anything like a full and exhaustive dialect dictionary was published. Halliwells' Dictionary of Provincial and Archaic words was printed in 1847. It was, however, unreliable, inaccurate and insufficient. Such were the chief Dialectical works in existence when Prof. Skeat, assisted by many friends and scholars, founded the English Dialect Society in 1873; of which he was appointed Secretary. This Society set about the task of reprinting old glossaries, of collecting as much information and material together on the subject of dialect as possible and of publishing new local glossaries.

A thoroughly exhaustive and at the the same time compact dictionary of all the English Dialects was, however, greatly needed, and such a Dictionary was started by Prof. Joseph Wright in the year 1894, founded chiefly upon the materials gathered together by the English Dialect Society. For several years previously, vigorous efforts had been made throughout the country by means of lectures, delivered by the Professor himself, and of local committees, to arouse an interest in the undertaking, and to enlist voluntary readers for the task of excerpting dialect words from over some three thousand dialectical works and glossaries. In response to these appeals many efficient helpers were forthcoming, while numerous MS. collections of words were placed at the disposal of the Editor.

In 1894, therefore, the work of editing and publishing this vast amount of material was commenced. It is estimated that some ten or twelve years from the time of starting will be required for the completion of the whole, but already the first volume, containing the letters A, B, and C, has been published, while the letters D, E, and F, are now under preparation.

Financially, the enormous expenses incurred are paid to some extent by the subscription, each subscriber receiving two parts annually of about 144 pages each for the sum of one guinea. A small grant has also been made by the Royal Bounty Fund, while a few bequests have been made from time to time. The Editor himself, however, has been obliged to sink a large amount of private capital.

The work is carried on at the Clarendon Press, a suite of rooms having been lent by the Delegates of that institution. On entering the "Workshop," as it is generally called, a large airy room overlooking the quadrangle of the Press, one is at once struck by the rows of shelves, which completely cover one wall of the room and which are filled with innumerable slips of paper, "some in rags and some in tags and all in dusty brown" to adapt the old rhyme. These consist to some extent of used "copy" but are for the most part, the raw material collected during some twenty-three years of preparation and continually added to. The remaining walls are lined with books dialectical and philological, while access to the Editor himself is rendered a matter of some difficulty owing to the three revolving book cases which block the path. At tables facing the windows sit Prof. Wright and his staff, consisting of the Rev. Prof. Mayhew, a well-known philologist and writer, and two lady assistants. A university degree or its equivalent is required of every assistant, preferably one necessitati[illegible] some knowledge of philology, while experience has proved women to be eminently fitted for work of this description, demanding quickness of comprehension, accuracy, and precision of method.

The task of sub-editing falls to the lot of the assistants. The first step, after the material of a letter has been completely sorted, is the choice, founded upon etymological or dialectical grounds, of a head-word for each article, from among the variant forms of the same word. The article is then made up in press form, duplicate and unnecessary material being rejected, and all quotations verified. The various districts in which the particular word under consideration is used are given at the head of the article, together with the various spellings and forms in which it occurs, while ample quotations illustrating the definitions are to be found in most instances.

The etymology of each word, as far as can be ascertained, is supplied by the Rev. M. Mayhew, while the Editor contributes in phonetic spelling the chief varieties of pronunciation. It has been asserted that no word is to be found in the Dialect Dictionary for which there is not printed authority. This is not the case. Many expressions are inserted on the authority of reliable correspondents from mere oral use, queries being constantly sent out on questions of doubtful usage. Such words, however, as cannot be substantiated by more than one individual, are kept back and appended in a list at the end of each volume, for further information, when they will appear in a later supplement.

In scope, the Dictionary includes only such words as are in use at the present time or are known to have been in use during the past two hundred years, within the British Isles. Words belonging strictly to the Celtic languages such as Gaelic, Erse, Welsh or Old Cornish do not usually find a place within its pages unless they have passed into current use among the English-speaking population of those districts. American and Colonial words have also been excluded, except in a few instances, where they are illustrative of uses still to be found in Great Britain.

It is difficult to draw a hard and fast line between slang on the one hand, and a word or expression found in use in almost all the dialects. Hence certain colloquial words, such as Daddy, originally dialectical in origin, though since adopted generally have been inserted, but for the most part slang has been omitted.

The aim of the Editor throughout this work is to produce something more than a mere glossary or compendium of glossaries, without at the same time destroying that consistency of method, and concise form which is the soul of lexicography. No trouble is spared to treat as fully as possible all local customs, superstitions and games, such as "Duck stones," "Crying the mare," and "Cutting the neck," expressions well known among the harvesters of the midlands, who are wont to cut the "neck," or last sheaf of corn with many ceremonies. Popular names of flowers and birds are often interesting from the quaint etymology or fancied resemblances which have given rise to them. Thus the foxglove is known in some parts as the "fairies' petticoat," while the pansy, from the plaintive expression of the face described on it, is named "Cuddle me to you."

A short description of each of the various dialects, dealing with their history, development and most marked characteristics, together with an account of the limits of the dialectical areas now to be traced in Great Britain is reserved for the preface which will precede the whole work when completed. At present a comparison of forms and etymologies and a study of the districts in which they occur, will enable a reader to obtain much information on this subject for himself. For example, a strong Norse influence can be traced in Lincoln and the North, still more in the Western Isles and West Coast of Scotland; while in South Pembroke many words of Flemish origin still survive from the time of the Flemish cloth makers.

In discussing this work it is only fair to point out what in the eye of the general reader will seem a serious drawback. This is the constant use of abbreviations, necessary for the economisation of space. The difficulty, however, appears worse at first sight than in reality. A full list of such abbreviations is given at the beginning of the volume, while many are obvious to all. In quoting certain authorities of frequent occurrence, it has been found convenient to use numbers, affixed to the district, thus *N. Yks*[1], which can be identified as Atkinson's Cleveland Glossary, published in 1868. In this way a considerable amount of information can be conveyed by such mystic symbols as *W. Yks* 135 *Lan.*[1] *S. Chs*[1], etc.

The fitness of Dr. Wright for so laborious but useful an undertaking cannot be doubted. A Yorkshire man himself, thoroughly conversant with the dialect of his own West Riding he is one of the most prominent and able of English philologists, and if success is to be obtained at all in this "task of national importance," as it has been called, it will most certainly be obtained by one who has all the qualities which ensure success, ability, determination and unflagging powers of work.

English Grammar.

READ AT A MEETING OF THE TEACHERS' ASSOCIATION, BOMBAY.

MY subject is the teaching of English Grammar to the lower forms of European Schools—Standards I.—IV., and I feel sure you will forgive me if my remarks upon this topic prove unhelpful, or awaken no fresh interest in its teaching.

In our Code for English-speaking Schools, Reading, Grammar, and Poetry are classified under the head "English"—an apt combination. It draws the attention of the most ordinary teacher to the fact that Grammar should be taught in close connection with these subjects from the very beginning. I have always had *great* faith in the teaching of English Grammar. It is a subject which helps so very much to draw out the *thinking* powers of children and in developing their intelligence. Our Code directs that we should begin to teach it in the 2nd Standard, but this I think, you will agree with me, is a mistake; we should begin while the children are in the 1st Standard. I have always found that these small people quite enjoy picking out the *nouns*, classifying them under the divisions, proper and common, and giving the reasons for their being so classed.

When introducing Grammar to little children, I should avoid the dry facts, definitions, and phrases with which our books on this subject open and abound. Blakiston agrees with me on this point, and my own experience confirms his advice. It is enough for children to be told that we must speak and write English correctly, and in order to do this, we must learn Grammar.

Still, of course, I admit that we *must* have our definitions, but, when giving the first lessons on a fresh part of speech, we should make our teaching *lead up to them*. This is my opinion, and I shall be interested to know if you agree with me, or differ. I suggest to our young teachers present that they preserve any simple and clear definitions they may find in our various text-books in their own note-books for school use. Generally speaking, definitions, in many of our Grammars, are very ambiguous. But, I repeat, it is a good plan to let our definitions be the result of our teaching—in fact, as I said a minute ago, to make our first lesson or two, on a fresh part of speech, *lead up to the definitions*.

For Standard II. the Code requires that all the parts of speech should be named, and this, after careful teaching throughout the year, the children should be able to do easily.

Both Standards I. and II. require the same line of teaching in this subject, and the same simple way of testing their knowledge.

Take the *Noun* as an example. After the teacher has taught her class to give the names of the different sorts of furniture and things around them, and in the house or garden, &c., and the names of familiar persons, the name of the city in which they live and other places they know, *then* fall back upon their reading-books and the little pieces of poetry they are required to learn by heart during the year, and let the children pick out the parts of speech, page by page, and verse by verse.

Another simple way is for the teacher to choose a sentence from any text-book, or make one up herself and write it on the black-board, making the children name the part of speech she points out, and giving reasons, in their own words, for their various answers.

Another simple exercise is to make the class pick out a special part of speech, on a specified page of their reading-book, and *write* the words on their slates in columns.

Every error a child makes is food for a teacher's remarks and further instruction.

Perhaps others present will give, a little later, a few more hints upon ways and means to vary the grammar-lesson and so keep up the interest of these little children. We come next to Standards III. and IV., and here I agree with Blakiston, that analysis should be introduced—quite simply as far as Standard III. is concerned, and more fully in the 4th Standard.

To impart the notion of the "structure of the sentence" is our object, and the sooner the children have grasped this teaching, the better for them, and indeed for us too. They will be so much more intelligent. Children in Standard III. are soon able to point out the subject, predicate, and object, and the enlargement of the subject and predicate.

This simple analysis is by no means to supplant or interfere with our teaching the *Inflexions* of each part of speech fully. Speaking from my own experience, I know the children at this stage find Grammar very interesting. They are able to bring their general intelligence to the front, and to answer so much in their own words. Definitions, of course, are forthcoming, but they are not oppressive when the children *understand* their meaning and shew that they do so from their various answers, actual parsing, and from set questions.

I do not require these two standards to analyse on paper—in writing. They do so during a Grammar lesson. The Parsing only is written.

I shall be interested to know the time you have set apart in your time tables for this subject. In my 1st and 2nd Standards I allow ¾ hour for a Grammar lesson, a week, and the same time for parsing—1½ hour altogether. In my 3rd Standard a great deal of time is allowed, I think. Two Grammar lessons a week of ¾ hour each, and two parsing lessons a week, one ¾ hour, and the other ½ hour—altogether 2¾ hours, and besides this they do one parsing exercise a week, in their Exercise Book, during their preparation time.

In the 4th Standard less time is given to this subject. Grammar lesson ¾ hour and a Parsing lesson ¾ hour, altogether 1½ hour per week. But these children also do a short parsing exercise, in their preparation time, twice a week, which takes them about ten minutes or ¼ hour each exercise. The Reading Books and the Poetry for the year should be used very much for the Parsing Lessons and Exercises, to the great advantage of both. I am sure that its teaching especially improves the reading.

Educational Notes.

THE DISCONTINUANCE OF THE MAHARASTRA COLLEGE.

ALL those who are engaged in the work of higher education know fully that a college must have a good library, an endowment fund, scholarships, and a building of its own. When permission to start a college was obtained by the Poona Native Institution Association, the members had promised to remove some of the great wants. The college was to be named after Takhtsingji Thakor Saheb of Bhavnagar. The Association entertained sanguine hopes of securing a liberal donation, but the untimely death of the Maharajah dispelled every hope. Similarly, appeals for donations from H. H. the Thakor Saheb of Gondal and the Maharajah of Indore were not favourably entertained. The untimely death of Mr. L. N. Indapurkar, one of the Senior Life Members, and the unexpected death of Sir Jamsetji Jeejeebhoy, Bart., the President of the Poona Native Institution Association, proved an irreparable loss.

On account of various difficulties, such as the late famine, and the dire plague, the fiscal state of the Poona Native Institution (of which the Maharastra College is merely a higher branch) has been far from satisfactory; while in other respects, it is all right, as will be seen from the remarks of the Government Inspector and other examiners and visitors for the current year. The Educational Department objected to the employment of the masters of the Poona Native Institution in the College, considering it a departure from the representation made in the form schedule A when the school was first registered for a grant-in-aid. The Hon. Mr. Giles was consulted by the Chairman and the Principal of the Poona Native Institution, and the Director of Public Instruction, with his characteristic foresight, advised that they should not think of sending an application for the further continuance of the college, but get the whole instruction staff to devote undivided attention and energy to improve the fiscal position of the school. The college is merely a branch of the school; and if the efforts of the staff to improve the financial condition be crowned with success, it is hoped that a day may come when the authorities may, with reasonable hopes, renew the application. This is indeed a wise step, as it is not right on the part of any association to apply to the Senate for the continuance of a college lacking funds, a building, and necessary appliances.

The Native Institution was examined by the Government Inspector, R. D. Prior, Esq., M. A., who reported that he was satisfied with the general proficiency shown. The different classes and subjects were tested in November by a numerous body of examiners chosen from all sections of the community, and general satisfaction was expressed by the great majority of them. The reports show that the Principal, Mr. V. P. Bhave, is industriously and ably working the school into public favour.

THE HYDERABAD (SIND) EDUCATION SOCIETY.

WE have before us the annual Report of this Society, published, we believe, this year for the first time. We learn from the Report, that the Society, begun in the humblest way in October 1888, has by regular steps reached a highly important position. The Society has now four schools, the Hiranand Academy, named after its founder, the English Branch, the Hiranand Academy Vernacular Branch, the new English School, and the Hopeful School, founded for indigent boys who are taught without fees. These Schools are open to all castes and creeds, and have nearly eleven hundred pupils, under thirty-three teachers, six of whom are graduates. The earlier year of the Schools were favoured by the devotion of Mr. Hiranand, who managed to instil into the workers of the Society much of his own self-sacrificing spirit. He had a high ideal, and laboured unceasingly to make the pupils true in word, unselfish in actions, pure in spirit, and, above all, God-fearing. His noble example has borne excellent fruit, as most of the large body of teachers voluntarily accept a much lower salary than they could easily secure elsewhere, and work with commendable zeal for the physical, intellectual, and moral welfare of their pupils.

The Schools have an excellent report of progress for the past year. The Matriculation results, 14 out of 24 sent up, were perhaps less favourable than in the previous year, when 23 out of 30 passed. The schools did well in the University School Final and the Public Service Certificate examinations. Two Government of India scholarships were gained by the boys. At the time of writing the report, the total number of boys in the Schools was 980. Mr. Prior, Educational Inspector, in his examination in his inspection notes, speaks highly of the character of the education imparted, and makes special mention of the English of the boys. But we are specially struck with the very satisfactory remarks made by the Hon. E. Giles, after a recent examination of the Schools. He says that he was no less struck with the uniform efficiency and care in the teaching displayed throughout the classes than he was with the pleasant manners and good demeanour of the boys. He clearly traced in the pupils, he said, the influence of the high tone of morality, discipline and uprightness which is the aim of the Schools and of the Association. The practical good achieved by the Schools since their foundation have been briefly summed up in the report as follows :—

(1) A taste for simplicity in habits and manners has been engendered among the boys.
(2) Blustering behaviour and impudence have been checked.
(3) Indecent and abusive language has been discouraged.
(4) Respect for authority of parents and others has been inculculated.
(5) A desire for real and wide culture has been created in the place of a mere ambition to excel in examinations.
(6) Premature marriage has been discountenanced.
(7) Temperance and, in most cases, total abstinence, have become more prevalent.
(8) The laws of practical hygiene are better understood and the physique of the boys has somewhat improved.
(9) Almost all the spirit of irreverence which once threatened to become rampant among boys in this City (Hyderabad) has been restrained, and they are now more God-fearing and dutiful.

We cannot find better words to express our admiration of this Society's work than those the Hon. Mr. James wrote in the Visitor's Book :—"This self-supporting and admirably managed Institution is a credit not only to its founders and to the City of Hyerabad, but to the State, which can only desire to see more schools like it."

EDUCATION AND PATRIOTISM.

MR. H. O. ARNOLD-FOSTER, M. P., at a Distribution of Prizes, &c., at the College of Preceptors, London, last month, delivered a lively, interesting, and suggestive address to those present.

Amongst much other valuable matter, especially on art, classical research, and techncial study, he said :—

We have heard a great deal of croaking lately about competition from foreign countries ; we are told that Germany especially is doing an enormous amount in the matter of education, that such education is very varied, thorough, and practical, and that the Germans are beating us in our own markets. I confess I have been, and am, a bit of a croaker myself. There is no getting over the fact of the assiduity displayed by the Germans in educational matters. No doubt, they are supplanting us to some extent in our markets; but I do not think we need break our hearts about the matter yet. After all, we all start equal. I think we are possessed of the same faculties as our continental neighbours. You may depend on it the advantages—and they are advantages—which our competitors have acquired are those which they have made for themselves. I am not sure that we do not start, apart from those advantages, with a very large handicap in our favour.

After all, we have some qualities which are peculiar to our country. We start with all our free institutions and our methods of government. We are sometimes accustomed to talk of free institutions as matters to be admired in classes on constitutional history, but to be lost sight of elsewhere. That is not my opinion. Our common sense way of taking matters is of great advantage to us in the formation of character, and, I believe, on that ground we start one to the good, and that we have not a great many of the difficulties which they have to contend with on the Continent. We are free, too, from the great war tax, which the conscription imposes upon Continental countries. You cannot have a great blood tax without suffering from it in some way. We have this great and varied Empire of ours, and, above all, we have the great advantage which comes, I think, to those who serve the Empire in distant lands, of being able to act upon their own responsibility, and to do their duty according to their conscience, apart from the trammels of life at home. We have to send men out to govern India—to work upon their own initiative and out of their own brain, and that does undoubtedly go to form character, and is a great assistance to this country. But we also want thoroughness in our study of science, of applied science, of philosophy, of literature, and of everything. That is what we have to learn. I sometimes put it to myself in this way : we have the great advantage of our English character—of the moving force which is always wanted in any mechanical work. But it is of no use having English force of character, and power to drive the machine, unless you recognize that you cannot come into competition with men who are doing fine work, unless you have the fine instruments polished up, and an edge to your tools.

I spoke of the moral value of the Empire to us in forming our character. I wish to say a word for a study which is popular and pursued with great intelligence and knowledge, namely, the study of history. I think every Englishman, and every Englishwoman, is better for a little national pride. I do not mean that Englishmen are better than others; but the pride which comes from the knowledge of what our own people have done and have suffered in the past will make our people as effective in the future as they have been in the past. I do hope that history and literature will never be omitted from our studies. We want thoroughness in every study that we undertake. In the second place, as I say, we want every student to have a lively interest in this great country and the duties of citizenship. The power the country has exercised in the past is a complex one, for, although we have had great specialists in all branches, whether it be in science, in art, or in applied science, great mathematicians, great philosophers, and men of letters, we find in every department men who have been ready to take a part in the life-work of the nation to which they belong. They have been good citizens, as well as active members of the community. Their special work has been rendered none the less effective by the fact that they have imported into it those English qualities of which I have spoken. There are examples which must be familiar to all of you. To go back to our most recent memory, we have Livingstone, whose life was devoted to his first call, that of a religious duty; but he was a pioneer of this country, and one to whom the interests of his fatherland were always dear. Then we have Herschell, the great astronomer, a man of the world, capable of taking his part in all the good work which went on around him. Next we have Gladstone, who was a literary man of great gifts, and at the same time was, *par excellence*, a great politician. Then we have Lord Kelvin, who is one of the greatest ornaments of scientific life. He is always able to take his part in the daily work of the nation, and is an effective person in whatever he puts his hand to.

I think you will find that this generalization with regard to our great Englishman holds good to a large extent. You will find the great workers of this country have been none the less effective because they have been staunch members of the community, and have tried to serve the community outside their own particular branch. I wish you well in the application to study which is necessary to enable you to compete with your foreign rivals, whoever they may be, French, or Russians, or Germans, and I do not think you need be too alarmed as to the issue. We too can do good work, if we go about it the right way. Let me give you an example. Some time ago I was commissioned by the London Chamber of Commerce to enquire into the number of foreigners employed as clerks in the City of London. And what was the lesson I learned? That there was an enormous number of men so employed. And why? Because they possessed certain information which the majority of the English boys did not possess; but the answer was uniformly the same from the masters—that whenever they could get an Englishman with those qualities, he was preferred on many grounds to the foreigners. We want to increase our knowledge in scientific matters. If we get that increased knowledge, it will be of enormous advantage to us. Beyond that, we must not lose sight of our national character. If we get that increased knowledge we shall prosper ourselves, and become useful citizens of the country to which we belong.

SOCIETIES.

If there is one thing more than another that is noticeable in England, as well as in most other European countries, and in which India is lacking, it is the tendency to form "societies." We are reminded of this condition of things by reading in an issue of the London *Times*, to hand by the current mail, a lengthy report of the proceedings of the lately started "National Chrysanthemum Society!" The institution of such a society as this sounds almost absurd, and yet, after all, this is the sort of thing that leads to excellence in small matters. Botanical societies, horticultural societies, and so on, are all very well in their way; but when a number of individuals in England, ardent on the particular glories of the chrysanthemum, get together into a "National Chrysanthemum Society," for competition in the growth of the particular flower of their hearts, we can imagine that the chrysanthemum in Great Britain will be brought to a grade of the supremest excellence. The chrysanthemum is merely an ornamental bloom; and yet while in England people can be found keen enough to get up a "National Chrysanthemum Society," it is difficult in India to get up a sufficiency of gregarious enthusiasm even for the due promotion of such serious associations as landholders' societies or agricultural societies. While in England the growers of chrysanthemums will bring their flower-pots together for joint purposes, we find it a case in India of every man sitting "under his own fig tree" and ploughing his own fields in his own way. If England were India, we should have not only agricultural societies energetically working for the common good, but, on lines even more commercial than those of the "National Chrysanthemum Society," we should have the National Mango Society, the National Custard-apple Society, the National Jessamine Society, and dozens more.—*Morning Post.*

Reviews.

The Odes of Horace, Book I., by Stephen Gwynn, Oxford. Price, 1s. 6d. Blackie & Son.—This is the first volume of a series of Elementary Latin Classics, and being furnished with a full vocabulary, as well as a clear explanation of grammatical difficulties and historical allusions, it is, as far as possible, complete in itself. An excellent general introduction, which gives us a succinct account of the life of Horace and his contemporaries, brings us smoothly to the particular introduction to Book I., where we find a careful table of the metres used in the book. We shall look for the other volumes of the series, and trust that they may be as satisfactory as this one.

Provident Societies and Industrial Welfare, by W. E. Brabrook, C.B. This is the last published volume of the Victorian Era Series, edited by Mr. J. Holland Rose, Cambridge. The series is intended to form a record of the great movements of the age in politics, economics, religion, industry, literature, science, and art. Provident Societies have had a large share in the promotion of industrial welfare during the present era. How that is so may be ascertained by any one spending a short time in the company of this book. The previous volumes of the Series have been accorded a gratifying reception, and this one is as worthy of acceptance as its predecessors. It is certainly as useful and interesting.

The Great Campaigns of Nelson, by W. O'Connor Morris (Blackie & Son.)—We are told in the preface that these articles originally appeared in the *Pall Mall Magazine*. The text has been revised and corrected, and some additions made to it. One object of the work has evidently been to shake the faith of England in her impregnability, and security from invasion, should she rely too much on her maritime power only. The campaigns are graphically related, and illustrated by some excellent maps, but we do not gather from the volume anything that is particularly new.

The Newton Science Primers, Books I.—III., by W. Furneaux (Blackie & Son).—These are extremely attractive volumes for young persons, especially as they are excellently illustrated, in several cases with beautifully coloured pictures. While used as reading books, the summaries appended may well be used for composition lessons.

Two Essays on William Pitt, Earl of Chatham, by Thomas Babington Macaulay, edited with Introduction and Notes by Arthur D. Innes, M. A. (*Blackie & Son*), *and Macaulay's Essays on William Pitt, Earl of Chatham, by R. F. Winch, M. A.* (*Macmillan & Co.*).—The copious and carefully prepared notes, gleaned from the best sources of information, ought to satisfy any student of these essays. For a Matriculation or a P. E. Class the volume ought to be highly suitable.

A First Sketch of English History, Part I., 449—1307, *by E. I. Mathew, M. A., LL.B., Professor of History in the Unversity of New Zealand* (*Macmillan & Co.*).—This book is meant as an introduction to the study of Constitutional History. To render the object less technical it has been intervoven with a brief narrative of events to show the connection between political history and constitutional. It does not lay claim to originality, but is based upon the views of standard authorities. It is such a book as may usefully be placed in the hands of pupils appearing for matriculation in the different Presidency Universities of India.

The Art of Teaching by David Salmon, Principal of Swansea Training College (*Longmans, Green & Co.*).—Books on the Art of Teaching are becoming so plentiful in these days that one hardly expects to find anything new in books on this subject now being published. Yet Mr. Salmon has managed not only to give much valuable information, but to give it in a fresh and interesting manner. The selected questions which are appended are thoroughly practical and suggestive. The book will doubtless take its place in teachers' library shelves along with other good books which treat of the same subject.

Books Received.

We have also received the following new books and new editions, some of which will be noticed later:—

Messrs. George Bell & Sons.—The Stanzas of Omar Khayyam, translated from the Persian by John Leslie Garner. Second Edition, 3*s*. 6*d*. net.

Messrs. Blackie & Sons.—The Great Campaigns of Nelson, St. Vincent, The Nile, Copenhagen, Trafalgar, with Maps and Diagrams from Captain Mahon's "Sea Power," by William O'Connor Morris. 3*s*. 6*d*.

The Newton Science Readers, by W. Furneaux. Infants, 8d.; Book I., 10d.; Book II., 1*s*.; Book III., 1*s*. 2*d*.

The Odes of Horace, Book I., edited by Stephen Gwynn. 1*s*. 6*d*.

The Victorian Era Series, Provident Societies and Industrial Welfare, by E. W. Brabrook, C.B.

Messrs. Wm. Blackwood & Sons.—Colonial Library, John Splendid, The Tale of a Poor Gentleman, and the Little Wars of Lorn, by Neil Munro.

Foreign Classics for English Readers, edited by Mrs. Oliphant. 1*s*. each.

Calderon, by E. J. Hasell.

Saint Simon, by Clifton W. Collins, M. A.

The Cambridge University Press.—Comus and Lycidas, edited with Introduction, Notes, Glossary, and Appendix, by A. W. Verity, M.A. 2*s*.

Messrs. Longmans, Green & Co.—Psychology in the Schoolroom by T. F. G. Dexter, B.A., B.Sc., and A. H. Garlick, B.A. 3*s*. 6*d*.

The Art of Teaching, by David Salmon. 3*s*. 6*d*.

Messrs. Macmillan & Co.—Macaulay's Essays on William Pitt, Earl of Chatham, by R. F. Winch, M.A. 2*s*. 6*d*.

A First Sketch of English History, Part I., 449—1307, by E. J. Mathew, M.A., LL.B. 2*s*.

Practical Inorganic Chemistry for Advanced Students, by Chapman Jones, F.I. C., F. C. S. (London and Berlin), etc. 2*s*. 6*d*.

Siepmann's German Series Elementary Vom Ersten Bis Zum Letzten Schuss Kriegserinnerungen, 1870-71, Von Haus Wachenhusen, edited by T. H. Bayley, M. A. 2*s*. 6*d*.

Superintendent, Government Printing, Calcutta.—Agricultural Series, No. 27. (Food Substances.) Dancus Carota, (The Carrott.) Agricultural Ledger, 1898—No 12. Carrot Cultivation as an Emergent Crop at Seasons of Threatened Scarcity or Famine. Note on the general conclusions established by the results of the experimental cultivation in the North-Western Provinces and Oudh of Carrots from imported seed during the Rabi seasons of 1896-97 and 1897-98. 3 annas or 3*d.*

Crop Disease and Pest Series, No. 3. Sugar-cane Disease (Trichosphœria Sacchari, Mass.). Agricultural Ledger, 1898—No. 13. An Account of the Fungal Disease attacking Sugar-Cane in the West Indies, together with Remedial measures recommended by the Authorities of the Royal Gardens, Kew. Concluding with Dr. Bourne's Report on the Occurrence of the Disease in the Godávari deltas. 3 annas or 3*d.*

Mineral and Metallic Series, No. 11. Coal (Indian Coal). Agricultural Ledger, 1898—No. 14. Report on the Coal supply of India. Including results of the Examinations of Selected Samples from the Principal Seams. (With Appendix containing Tables of Results.) By Professor Wyndham R. Dunstan, M.A., F.R.S., Director of the Scientific Department of the Imperial Institute, London. 6 ans. or 6*d.*

Vegetable Product Series, No. 43. (Fibres.) Bœhmeria Nivea. Agricultural Ledger, 1898—No. 15. Rhea (Riha) or China-Grass. A Review of existing information on Rhea or China-Grass, being a Revision of the account of that fibre as given in the Dictionary of Economic Products. Also a Revision of the articles on Villebrunea integrifolia and Maoutia Puya. By the Editor. Rs. 2 or 2*s.* 8*d.*

Notifications.

PERMANENT NOTIFICATION.

No. 3959 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
19th September 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. GILES,
Director of Public Instruction.

The subjoined Government Resolution No. 6117 (General Department), dated the 7th November 1898, is published for the information and guidance of Educational officers.

Poona,
24th November 1898

E. GILES,
Director of Public Instruction.

Dismissals.—
Procedure to be followed in cases of dismissal of public servants.

No. 6117.

GENERAL DEPARTMENT.

Bombay Castle, 7th November 1898.

Letter from the Government of India, Home Department (Public), No. 2032, dated the 15th October 1898:—

"In several recent cases of Government servants dismissed for misconduct it has been noticed that the charges laid against them have been investigated in a very unsatisfactory manner. The attention of local Governments and Administrations is therefore drawn to the instructions contained in the Resolution of the Government of India, Home, Revenue and Agricultural Department (Public), No. 37—1389-1404, dated the 29th July 1879. It is there laid down that in all cases of dismissal of public servants, except in cases of dismissal in consequence of facts or inferences elicited at a judicial trial, or when persons have absconded with an accusation over their heads, the charges must be reduced to writing, the defence must either be taken in, or reduced to, writing, and the decision on the defence must also be in writing. I am to request that the strict observance of these instructions may again be impressed upon all officers concerned."

RESOLUTION.—Copies of the letter from the Government of India should be forwarded to all Departments of the Secretariat and to all Heads of Offices for information and guidance, with reference to Government Resolution No. 2218, dated the 18th August 1879.

R. B. STEWART,
Acting Secretary to Government.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY (NEXT TO THE SMALL CAUSES COURT).

The following new books and fresh additions are now available in the Library.

2. The Library and Museum are open to the Public every Saturday, from 7 to 11 A. M. (Bombay time), and on other days by arrangement with the Curator.

3. See notice in *Record* for February 1887, page 44.

Poona,
12*th November* 1898.

R. D. PRIOR,
Educational Inspector, C. D.

Author.	Title of Work.	Publisher.	Price.
			£ s. d.
	Class 10A :—Catalogue of Books &c.—		
	The Book-seller for October 1898.	Whitaker & Sons.	0 0 6
	Class 14 :—Copy Books, &c —		
	Longmans' New Copy-Books for Rapid Writing, Nos. 1-15.	Longmans, Green & Co.	0 0 2
	Jackson's System of Upright Penmanship, Nos. 1-4, 6 and 7, 9-11, 13 and 14, 16-18, and 24 and 25.	Sampson Low, Marston & Co.	0 0 2
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	Class 37 :—Geology—		
W. Watts, M.A.	Geology for Beginners	Macmillan & Co.	
	Class 42 :—Latin		
	P. Ovidi Nas-onis Opera, Vol. I.	George Bell & Sons.	
	Do. do. Vol. II.	Do.	
	Do. do. Vol. III.	Do.	
G. H. Nall, M.A.	The First Oration of Cicero against Catilina.	Macmillan & Co.	

Established 1864—1894 *Re-issued* 1898

The Bombay Educational Record and Literary Journal.

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Vol. XXXI.] JANUARY 1899. [No. 7.

The Status of Schoolmasters.

(*Contributed.*)

It is indeed strange that while there has been of late so much talk in this backward country of ours about Higher and Primary education, Technical and Commercial education, Social and Political education, Moral and Religious education, and sundry other kinds of education too numerous to name here, little or no thought whatever is bestowed on the educator; and yet the fact is obvious that there can be no sound education, none worth the name, without proper educators, just as there can be no light without the sun. Take any kind of education from those named above or many others still remaining unnamed, and it will be evident to all earnest thinkers that the main factor in the problem is the educator.—For, after all that has been said or done in favour of technical and industrial education the fact remains that it is education in the broadest sense of the word, the training or development of the mental powers, that we Indians want most. It is not the teaching of any special profession, industry, or art that is so much needed just at present as the laying down of a sure and solid foundation on which the superstructure of any congenial profession or occupation can easily be raised when the time for it arrives or the necessity arises. As remarked the other day by Prof. Bryce, "Technical education is twice as good in its results when given to boys whose minds have been previously thoroughly well trained by a course of *secondary* education, but it is of no use beginning a course of scientific training with a boy whose mind has not been trained in habits of thought." As in the teaching of Arithmetic we should call it superficial and barren to teach only the rules and formulæ for working out the sums in any given branch, such as Interest, Discount, Stocks, &c., whereas the right thing would be to instil into the student's mind the principles of the Science and the methods of applying them to the solution of the problems that he may have to face in the examinations. So the youth of a country and specially those of India at the present day require to be *educated* in the first instance. Industries and occupations will, like the professions, follow of themselves. An *educated* person can readily start an industry or qualify himself for some occupation when compelled by want or led by ambition to do so, provided he has or can command the requisite means and materials, such as capital, machinery, labour, &c. But no amount of mere special education, industrial or technical, as well as of wealth and material, can supply the want of liberal education. Even the ambition and want which we have stated to be incentives to the starting of industries or the pursuit of occupation are to a certain extent the product of education. This is just what we find at present. Nobody can deny that India possesses sufficient capital and material, but that it wants men of education and enterprise, that is to say, of the right culture, to utilize them in developing the old industries to the modern standards or in founding new ones to supply modern wants. On the other hand, England had only three centuries ago neither of the two to any very great extent, and yet Englishmen have by the light of liberal education raised her to the very pinnacle of prosperity and political importance, and though Germany and a few other countries of Europe are said to be surpassing England in arts and manufactures at the present day by their superior technical education, it is not really the latter that is the cause of their superiority, but better organization, cheaper labour, and State support that enable them to compete successfully with her in the foreign markets[*]

Now the power of organization, economical management, and correct principles of business, all emanate from sound education. As the *Spectator* is quoted to have observed in a recent article on 'Business and Culture,' it is "by extra years spent at school and college and not in the workshop that youths acquire that general development of the mental powers by which they are enabled to discern the application of the results of modern Science to business." So our greatest want just now is the general development of the mental powers of the younger generation, in other words, the rearing of the largest possible number of cultured young men by giving them the best procurable education in our Schools. The same fact is most forcibly and clearly brought out in an interesting speech delivered recently by His Highness, the Nizam of Hyderabad Dekkan, while replying to the address presented to him by the Educational Institutions of his dominions on the occasion of His Highness's birthday. Towards the conclusion of his speech His Highness is reported to have said as follows :—"I wish all engaged in the teaching of children in this country to understand how great is the responsibility laid on them. Other officials have work to do which concerns the passing affairs of the day and can be measured and estimated. Schoolmasters have to work for time to come, they are called upon to provide for the future wellbeing of the rising generation of the people, so that from the very nature of the case their work cannot be weighed or measured, nor its quality appraised all at once. If other officials make mistakes, if they misplace a wheel or mishandle a screw in the machinery, it is always possible to set it right again with a little straining. It is otherwise with teachers. They have the regulation of the entire movement of the clock, so that it should keep right time. They should therefore endeavour to do their duty with thought and care and mould the plastic material placed in their charge in such wise, that their pupils might turn out a credit to their families, their nation and their country. As April showers are reputed to impregnate oysters with beautiful pearls, and the bright rays of the sun to penetrate the veins of the living rock and turn it into lustrous ruby, so does the light of knowledge illumine the mind of man and make him perfect." Thus the salvation of a nation, much more that of the backward India of the present day depends on the culture, that is, the liberal education of its youths; not on its having heaps of clever carpenters, skilful shoemakers, or dexterous weavers and potters, but on the largest possible supply of sound thinkers (for as we think so we become and act) who can seize every favourable opportunity and bend it to their own profit and their country's benefit. Will any one deny that the prosperity and greatness of England,

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[*] The Brummagem nature of the wares they produce shows this but too plainly. If those countries were to produce equally substantial and durable things as England, they never could oust English wares from any market on account of cheapness.

America, and the other foremost nations of the west is the direct result of the extent to which liberal education has impregnated the minds of the middle classes there, or that Spain, Turkey, Italy, and Russia which are admittedly backward in liberal education, are also not so much to the fore in material prosperity and enterprise. The Persian nightingale, our immortal Sadi says :—"No teacher ever taught any man understanding and sense; but God implanted these qualities in man's nature." It should be the function of education to rouse the dormant qualities, to draw them out, to bring them to bear rightly on surrounding nature, animate and inanimate. And for the due performance of such an important and difficult function we must have *educators*, there being of course no lack of the other factor in the problem, *viz.*, the youths to be educated.

The reader will say that if there is no lack of pupils, there is also no dearth of teachers. This brings us to the point at issue. There is no denying the fact that we have enough of teachers and to spare, that the supply or rather the outturn of schoolmasters nowadays is far in excess of the demand. But there are teachers and teachers, and it will not be far from the truth to say that under the existing system of public instruction there are scarcely ten educators to a hundred teachers or schoolmasters. It is to be feared that even this low percentage may on careful enquiry be found to be an over estimation. As in many other professions nowadays most of the words employed to designate men and things have come to be mere names and nothing more; for instance, in the majority of cases a lawyer is not one who has sound knowledge of law, but one who has passed a certain examination (though this is supposed to be the test of the possession of such knowledge) and practises in the law courts, not one who makes it his business to interpret the law for puzzled humanity but one who makes his profession a means of becoming richer than his fellow men in the other walks of life; as physician designates not one who has acquired a thorough insight into the physical organism and its ailments but only one who is licensed to dispense a few drugs believed to have some efficacy on certain diseases, not one again who applies his knowledge (if he has any) to the alleviation of distress but who like his legal brethren uses it to earn more lucre than those engaged in the other professions and callings; as author designates a mere bookmaker with the very same mercenary object and not an interpreter of nature or inculcator of Spiritual truths; so our *teacher* is in the majority of cases not a person that *can* teach, but one who is employed in a School with the professed object of teaching. He may possess neither the qualifications nor the ability of a teacher, he may not have the least conception of the function of an educator, and yet for the mere fact of his being hired to teach he is dubbed a teacher. Of such teachers we have abundance. But the true teacher must be an educator. He must be a person who can fully and fairly develop the mental powers of his pupils, who can, in the words of His Highness, the Nizam of Hyderabad, draw out and cultivate all their powers so as to make perfect men of them. For such a purpose the educator must himself be a well-educated person, who has received the highest liberal training which the country can afford and whose mind is so far illumined by the light of knowledge as to render him almost as perfect morally and mentally as the present state of humanity can make it possible. Only such a person can have any adequate conception of his responsibilities and can be trusted to discharge them properly. Then again the educator must be a person of the highest character, pure hearted and noble—minded, qualifications which are in a great measure the outcome of sound liberal education. Such a one only can impart his breadth of view to the youths in his charge and make them magnanimous, philanthropic and charitable cosmopolitans, instead of narrow-minded money-seekers, above all our educator must be a man of experience; not the mere experience of preparing successful candidates for some examination, for, that after all, though necessary as a test, is of little value in itself in the education that we have in view, but the experience of men and life, of the world and its ways, of right and wrong, which to a certain extent is the growth of all liberal education. From what is said above it will be conceded that Matriculates and School Final men who at present form the bulk of teachers in our Secondary schools, as well as the whole lot of those who fill our Primary schools are [illegible] a function requiring such high qualifications [illegible] attainments.

Here we beg leave of the reader to digress a little in order to point out a [illegible] anomaly in our system of public instruction [illegible] instead of educating our boys, we render the majority of them utterly useless to their families and to the nation at large. The root of the evil is the faulty classification into Primary and Secondary education on the analogy, nominal but false, of the English system; nominal because we retain the same names, and false because in the latter, that is, the English system the two divisions are from the very nature of the prevalent circumstances of one nation, one language, and continuous curricula, only to stages, upper and lower, of the one process of education. While in our own country, Primary education as at present constituted and conducted is a meaningless and purposeless institution which ends in nothing, which does not educate our youngsters and which leads to no useful or honourable occupation except that of vernacular schoolmasters, a function not needed and of no service but of positive harm to the country, for no one will, we dare say, be so bold as to contend that these men are men of culture and liberal education. Why have at all, we ask, such an institution as vernacular instruction which leads in spite if its name finally to nothing useful and which certainly is not Primary education in as much as it leads to no Secondary stage? What is called Secondary education here is in fact the whole education (however, incomplete at present) of our youths, containing within itself both the Primary and Secondary stages.*

It has its initial, middle, and final stages which are known as the Lower Secondary, Middle and High School education respectively. Thus for our true Secondary education which comprises the Middle and High School stages we have to begin anew at what is called the Lower Secondary instruction which corresponds to the Primary stage of the English system. What is called Primary instruction in India and what we have called Vernacular instruction is with us an institution by itself. It has its six standards of instruction with the point of bifurcation at Standard V., that is, after completing the first four standards, the student may either pass on to the lower Secondary instruction or continue on to the fifth and sixth, in which case after finishing the 6th, he has to pass the Public Service Certificate examination which entitles him with [illegible] service in the lowest grades of the Revenue, Judicial, and a few other departments of the State with a salary varying from [illegible] to 20 per month, but where he has very little chance [illegible] in competi-tion with his English-knowing rivals, or to join one of our so-called

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* Much of it unfortunately has to be imparted throught the medium of a foreign language but with all its faults it is education of the right sort.

Training Colleges* and qualify for the post of a Vernacular Schoolmaster. Except providing the two courses just mentioned, there is no other use whatsoever of this Primary instruction. All the respectable professions, all technical and commercial pursuits except perhaps the very lowest and meanest are barred to the youths who receive it. Thus what in official parlance is termed Primary instruction is a delusion in the name of education. It virtually leads to nothing important or useful. It is only when the the bifurcation-rather the separation-is availed of that a student's education really begins. The truth of our contention regarding the barrenness of Primary instruction is borne out by the fact that almost all students who wish to be anything in life leave it after the 4th standard and go over to the other course, the true beginning of education. They would indeed leave it earlier if allowed, but the rules are against them. Only those who have neither ambition nor means, in other words those who have no mind to take up any learned profession or enter upon any respectable occupation keep to it after finishing the first four standards. As a matter of fact, all sensible parents fret at having to keep their sons for full four years at the useless task and are only too glad when the little ones cross over to Secondary education which the reader should remember is a misnomer in as much as it is not a continuation of what has gone before. For here the students have to begin again from the beginning going through first the Lower Secondary stage which takes them three years, then the Middle School stage which takes two years more, and lastly, the High School stage which is intended to take two more years. Thus the full course of our Secondary Education corresponds to the English system of Primary and Secondary educatian combined together, which leads in England as the High School stage does in India, either to collegiate or technical education, or to some occupation. Collegiate education again leads in both the countries to the learned professions or to important offices in the state. It will be observed that Primary education in the former country is only the lowest stage of Secondary education, whereas here, in India, it is not, its place being taken by what is known as the Lower Secondary stage. The English Secondary education does not begin with the alphabet or the rudiments of arithmetic or History and Geography. The Indian does with a little unimportant variation. Thus either the Primary instruction here or the Lower secondary Stage of instruction is superfluous and should be abolished and the remaining one modified so as to serve as the true ground work of the High School stage. But we have digressed very far and must return to our subject.

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*Why these should be restricted to the training of only vernacular Schoolmasters is a mystery known only to the Department of Public Instruction.

We repeat then that neither the vernacular schoolmasters, nor the matriculates and school final men who at present form the bulk of our teachers in the secondary schools are qualified as educators of youth, and that only graduates of our Arts colleges, men who have carefully and diligently gone through the whole course of the instruction there imparted and who have so far benefited by it as to illumine their minds with the light of knowledge and made themselves as perfect in character as possible under the existing conditions, are fit for the schoolmaster's profession. Unfortunately, it is but too true that even among the graduates a majority are men who take their degree with an eye to make themselves qualified for some particular profession or service other than that of a schoolmaster, or, worse still, for the mere sake of the degree rather than for the culture which it is held to imply. Men of this class are, though not equally, at any rate only a degree less unfit for the educator's post than the other classes mentioned above. We therefore arrive at the conclusion that for the due discharge of such a responsible function as that of the educator of the youths of our country we should require the very pick of our educated men. But the difficulty is that such picked men are not to be had for the paltry pay offered to schoolmasters by the Government and following their lead by the public and private educational bodies. The status of schoolmasters and teachers of the present day is so low that any man of self-respect would turn up his nose at the profession. The other professions and posts in Government offices or mercantile firms carry such high emoluments and prospects that all the best talent of the country is drawn to them. Only a few exceptions here and there who are too high-minded and contented to take a merely mercenary view of the matter choose to serve in the educational department, and even they, we dare say, often have to regret their choice. Being men of culture and right ambition they must have sufficient to live like cultured men, and only when they are able to live so, can they educate and influence the young men in their charge in the right direction. Of course, we know that in ancient times the educator cared little for worldly advantages and lived like a regular ascetic. But times are altered and the whole system is changed. The modern system of life is the reverse of asceticism, and those who are the product of the system want and aspire to live in a befitting style. Hence the ambition of all educated men of the present day to live in affluence, comfort, and ease and to acquire the wealth and position which would enable them to take the lead in all social and political movements for the advancement of their country and thus be the foremost men of their time. Again, the influence of society is infectious. Where they see men of similar education and attainments living a life of affluence and comfort, it is but natural that they should wish for the same advantages. All that is not possible in the case of schoolmasters so long as their status remains what it is at present. The bulk of native graduate schoolmasters cannot get more than Rs. 100 per month.* Now a pleader, a medical practitioner, or a graduate of the engineering colleges, of not very high attainments, easily earns from Rs. 200 to 300 a month nowadays. Our L. L. B.'s., Solicitors, and Barristers count their monthly income if not in every case by thousands, at least by several hundreds of rupees. So do our M. D.'s, L. R. C. P.'s, and others, such as Dentists, Oculists, &c., &c. Coming to the services, we find that the pay of a Deputy Collector is from Rs. 300 to 800 per month and that of a Mamlatdar from Rs. 150 to 250, besides allowances. The pay of a Subordinate Judge of the second class is from Rs. 150 to 400, while that of a first class Sub-judge is from Rs. 500 to 800. The pay of an extra Assistant Conservator of Forests is from Rs. 200 to 350, besides allowances and of a Superintendent of Post Offices from Rs. 200 to 500 net. Even the Head Post Masters are paid from Rs. 75 to 300 and the Head Accountants in the Treasury offices from Rs. 120 to 250. The Inspectors of Police get from Rs. 100 to 250 and the Assistant Superintendents from Rs. 250 to 400. The salary of an Assistant Surgeon, Civil Department, is from Rs. 100 to 350, with allowances. What a sad tale does not this unfold! Can any one wonder after this why education occupies the lowest position in the State economy, why our people are so poorly educated and why the best men of the country desert this noblest of all professions? But the sadness turns into regret when we compare the qualifications of the graduate schoolmasters with those of the men employed in the several departments mentioned above. Taking them seriatim, a few of the Deputy Collectors and Mamlatdars are men of collegiate education, hence of the same culture and training as the graduate schoolmasters; but the rest are only men with some school education and nothing more. The majority of subordinate judges are all graduates who after finishing their collegiate education, like the graduate schoolmasters, study law and qualify themselves for their posts. It should be pointed out that the latter fact does in no way add to their general culture or intelligence inasmuch as it is preparation for a special profession only, and that the graduate schoolmaster, who in the first two or three years of his service makes himself fit for his profession by the special study of the theory and practice of education, is on a par with them. The rest of the officers named above are all certainly inferior in education and culture to the graduate schoolmasters, even the Extra Assistant Conservators and the Assistant Engineers, who are mostly L.C E.'s, included. For the only liberal education the latter receive is school or secondary education. Of late it does extend as far as the Previous examination, but that can in no wise compare with the education of an Arts graduate. We would not deny that these men, the Extra Assistant Conservators, the Assistant Engineers, the majority of the Deputy Collectors and Mamlatdars, the Superintendents of Post Offices and the Head Postmasters, the Head Accountants, and the Assistant Superintendents and Inspectors of Police are fit men for their respective duties and have the requisite qualifications and experience for their special line of work which they have of course acquired by many years' service in their respective departments. But does not the same apply to the graduate Schoolmasters with this much more in their favour that over and above their knowledge of technique and the aptness acquired by experience they have the initial superiority of their liberal education and culture which the others have not and yet their status, compared to those men, is a little higher than that of Head-Karkuns and Munshis. We should not be understood to say that this is the case with all graduates who are Schoolmasters. The Head Masters of High Schools get salaries that do in some cases come somewhat close to those of the services specified above, though even they cannot be said to be so well off as regards the number of appointments and the maximum of pay. Be that as it may, our contention is for the bulk of graduate schoolmasters and their status as the educators of our youths. If their function is admitted to be as important and responsible as we have tried to show in the commencement, then their status and emoluments should be equally high with those of any one of the classes of public servants named above, for the duties of none of these can ever come up in responsibility and tact to the duties of an educator. If we had time and space we could take up the duties of each class separately and show in detail that they are nothing more than mere routine, the knowledge of which is easy of acquirement by a person of ordinary intelligence by a few years' service in the ranks. At the same time the posts are so full of temptations that unless the occupants be men of the highest culture and integrity there is great danger of malpractices and injustice to the parties between whom they have to adjudicate. Whereas on the very face of it the schoolmaster's function, the proverbial 'teaching the young idea how to shoot' is so much above routine that it rises far above the sphere of more ordinary intelligence and learning. In fact the contrast is as Hafiz has said "From where to where or as wide as that between the dim light of a candle and the dazzling splendour of the sun."*

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* This in itself being a lengthy subject and requiring separate discussion we propose to deal with it on another occasion.

Thus we hope we have said enough to show that the backward state of our country is due to the want of education in the true sense of the word, and this, again, *viz.*, want of education, is due to the inferior and unsatisfactory status of the present day schoolmasters for which the educational department is to a great extent responsible. It is no new discovery of ours. On the contrary it is a fact known to and admitted by all. Only the pity is that the remedy has not been forthcoming. Journalists have cried themselves hoarse on the subject whenever the question has come up for discussion. Honorable members have thundered about it in the Legislative Councils. Wherever there has been a man of light and leading interested in the advancement and prosperity of the country he has on every possible occasion sought to move the Government to do their duty with this most important department of the State. The Educational Journals have kept up the cry by trenchant and convincing articles all the year round. But all to no avail. The only result hitherto of all this effort has been to raise the minimum pay of the village schoolmasters from Rs. 7 to 10 per mensem, not even a cooly's wages in this country of cheap labour, and that of the secondary schoolmasters from Rs. 20 to 30, which is less than what artizans of the lowest orders, such as the unskilled carpenters, blacksmiths, and masons get in the third rate towns. It would appear as if the State machinery were so constituted that sober reasoning and honest work have no value in the estimation of the men at the head of affairs who cannot be moved for good or for evil from their callousness. The history of reforms in the Medical, Public Works, Forest, and other departments shows too plainly that if schoolmasters or for the matter of that, the leaders of native society want education to be put on its true basis they must assert themselves and their rights and keep on doing so. In most cases where agitation for reform in any department has succeeded it has had not only to reach the heights of the Himalayas but to travel as far as 6,000 miles hence. Unfortunately a Bahadurji has not yet risen in the ranks of schoolmasters to do for them what that devoted doctor did for the Assistant surgeons and the medical profession. Let us hope the time is near when the younger generation of India may have one like him to take up their cause and keep knocking at the gate of our Olympian government, for, after all it is not so much for the schoolmasters as in the interest of education that the reform is really needed. But we should not be understood to suggest that nothing be done for bringing about this desirable and necessary reform in the fond expectation of finding in the distant future some earnest able man to plead the cause of young India's education. We would rather advise the schoolmasters to put their own shoulders to the wheel, for self-help is the ruling principle of all great achievements and God helps those who help themselves.

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* We regret we have to be content with translation at the cost of destroying the striking and epigrammatic beauty of the original which being in Persian would be unintelligible to many of our readers and has therefore to be translated.

The Post Graduate University for India.

On Saturday 31st December 1898 the first public function performed by Lord Curzon in Bombay was to receive a deputation, representing the Provisional Committee for carryingout Mr. Tata's scheme of an Imperial University for the development of Post-Graduate education, at Government House, Malabar Point, in the afternoon. The deputation consisted of the Hon. Mr. Justice Candy, Vice-Chancellor of the University; Mr. Jamsetjee N. Tata; the Rev. Dr. Mackichan; Mr T. J. Bennett; the Hon. Dr. Bhalchandra; and Mr. B. J. Padshah, the Honorary Secretary of the Committee. Prior to waiting upon his Lordship, the Committee had submitted the following representation :—

To the Right Honourable George Nathaniel, Baron Curzon of Kedleston, P.C., M.A., F.R.G.S., Viceroy and Governor-General elect of India.

May it please your Lordship,—We, the undersigned, have been deputed by the Provisional Committee of the Imperial University or Research Institute (proposed to be established in India for the purpose of Post graduate Instruction in higher Scientific and Technical branches of learning) to submit the following representation for the favourable consideration of your Lordship :—

1. Frequent references have recently been made in Convocation addresses at the Indian Universities and elsewhere to the defects of the present system of higher education in this country; and it has been felt that some of our graduates ought to be trained for the higher branches of Scientific Research, to enable them to help the industrial development of which the country stands in such need.

2. Our colleague and townsman, Mr. Jamsetjee N. Tata, had his own thoughts turned in the same direction for some years; and about two years ago, in connection with a family settlement of his property which he contemplated, he decided to offer a property representing a capital of thirty lacs, and calculated to yield a yearly income of about 1¼ lac of rupees, on trust for an Imperial University or a Research Institute which will, with the help of the Government, the Native States, and the public generally, supply this longfelt want of a higher course of Post-graduate Instruction in Scientific Researh for the best students of our existing Universities. He consulted his friends in England and India, and as the result of the

advice received from them, he made his offer to his Excellency Lord Sandhurst, under certain conditions.

3. The original idea was to incorporate the new Institute in the existing Bombay University, and to open its classes to the students of the other Universities. But it was found difficult to give effect to this idea; and, with the full concurrence of his Excellency the Governor, the scheme of a separate University or Institute, open to the graduates of all existing Universities, and fully equipped with the necessary staff of teachers and appliances, such as Laboratories, Museums, Libraries, &c., was taken into consideration.

4. A Provisional Committee, composed of the Vice-Chancellor of the University, Mr. Tata, the Director of Public Instruction, and other experienced gentlemen, official and non-official, has been formed, and they have prepared a Draft Bill for the approval of the Government of India, together with a scheme of studies and estimates of probable initial and annual expenditure. We submit, herewith, the result of their deliberations in the shape of the accompanying Draft Bill and a Scheme of Studies according to the following three-fold division: (i) Scientific and Technological; (ii) Medical and Sanitary, and (iii) Educational and Philosophical.

5. Your Lordship will perceive from the accompanying papers that the initial expenditure required comes to about 15 lacs, whilst the annual charge in the three departments (when fairly equipped) will require three lacs of rupees. Mr. Tata's offer can go but a little way in furnishing the funds required for the scheme elaborated by the Committee. Both Mr. Tata and the Committee, however, hope that, if your Lordship's Government promises its support, and the scheme is fairly placed before the Native Princes, the several Local Governments, and the public generally, it will meet with such support as to ensure the chance of its being started at an early date, not perhaps, equipped in all its departments, but certainly in the more important ones. As more funds are forthcoming, and special chairs are founded by public and private munificence, other departments will be taken up, and the scheme developed to its full measure. The Committee are aware that the scheme of studies they have drawn up, and the provision they propose to make for the teaching staff, will admit of modifications and corrections when actual work begins. But, subject to such modifications, the scheme will, it is hoped, furnish a general idea to the

Government and the public of what is hoped to be accomplished.

6. It is to the Draft Bill, prepared by the Provisional Committee, which is intended to be the Charter of the new University or Institute, that we beg your Lordship to give a sympathetic consideration. As the endowment is to be made in connection with a family settlement, and as the investments are intended to be in landed and house property, special legislation is necessary to give effect to both these objects. This special legislation is also necessary with a view to confer upon the new Institution the power of granting degrees and diplomas, without which its effective working and popularity cannot be ensured. We are instructed that as the funds are intended for an institution, the benefits of which are intended for all India, including Native States, this legislation would have to be undertaken by the Supreme Council, more especially as the power of control and regulation are in the ultimate resort left to the Government of India. This Institution will be Imperial in its character, and will, therefore, have a claim for special consideration upon the Supreme Government. As it proposes to offer a strictly Post-graduate course of studies, it will not, in any way, interfere with the working of any of the existing Universities, and thus there is no room for conflict with vested interests.

7. The Committee further request that the Government of India will see its way to sanction a grant-in-aid to the annual expenditure of the proposed Institute. The recent debates in Parliament have shown that English statesmen of the highest rank fully recognize the importance of a new departure in the direction of imparting technical and and scientific instruction in higher studies. And the Right Honourable the Secretary of State for India gave expression to sentiments which lead us to hope that if your Lordship's Government proposes to extend the grant-in-aid principle to the higher lines of study, the Secretary of State for India in Council will support your Lordship's Government in this matter, which is of such immediate urgency in the interest of the further development of this country.

8. The Committee feel assured that the Native Princes will, in this matter, cordially co-operate with the Government of India. We are given to understand that there is already a large fund promised or collected for the Jubilee Health Institute, initiated by his Highness the Maharajah of Dholpore, and to which some of the Native Princes

have made large contributions. The object of that Institute is Bacteriological Research, and it thus falls within the second of the three departments of studies in our Draft Scheme. There is some popular misapprehension as to the methods of Research favoured by that Institute, and it will be of great advantage if the Princes who have promised help to that Institute could be induced to join their resources to those made available by Mr. Tata, and the funds of the two Institutes were consolidated together under the same management.

9. Besides those of the proposed Health Institute there are considerable funds raised in the Panjab and Hyderabad (Deccan) for Research purposes and for the promotion of higher scientific and literary education. If your Lordship's Government interests itself in the matter, and an amalgamation of these funds is to some extent possible, it will prove beneficial in the general interest of all India.

10. The Committee expect to be able to issue their appeal to the Local Governments, the Native Princes, the Chambers of Commerce, Mill-Owners, Engineers and other Associations in the country, shortly. The Rulers of two large Native States have been approached, and they are likely to give material help. The Committee, however, feel that the success of such an appeal depends no less on your Lordship's interest and sympathy than upon the measure of support the Government of India may feel inclined to extend to this Institution which aims at advancing to a higher stage of completion that edifice of Higher Education which owes its beginning and its development to the generous instinct of the British Government for the prosperity and advancement of the people of this country.

In conclusion, we beg to thank your Lordship for your kindness in receiving this deputation, on this the second day after your landing on Indian soil to assume charge of your high duties. It is an augury of hope that your Lordship's term of office will prove of the highest benefit to the people of this country in the years to come.—We have, etc.,

E. T. CANDY, *Chairman*. M. G. RANADE.
T. J. BENNETT. D. MACKICHAN.
BHALCHANDRA KRISHNA. JAMSETJEE N. TATA.
B. J. PADSHAH, *Hon. Sec.*

Bombay, December 31st, 1898.

Lord Curzon said that he had carefully examined the representation, and though he could, of course, give no final answer to it, he could at all events assure them that the object which they had in view had enlisted his warm sympathy. In the first place he desired to recognise the great generosity and public spirit which Mr. Tata had shown in contributing so magnificent a sum for the promotion of a great public purpose. He himself, though he could lay claim to no special knowledge of the subject, had learnt in the course of some years' study of Indian questions, that there were gaps at both ends of the educational system of India, and it was the gap at the upper end which Mr. Tata by his generosity was anxious to supply. While he warmly sympathised with the object of the scheme, there were certain considerations which, without the least hostility to it, or without committing himself to any unfavourable opinion in regard to it, he was desirous of eliciting information upon. In the first place, he desired to know if the Committee were satisfied that when they had got together a number of professors with high salaries, there would be a sufficient number of pupils for them to teach. He would be the last to say anything against paying professors on the most liberal scale. At the same time, it would be disappointing to have a number of liberally paid professors lecturing to empty classes. Then, again, a good deal had been heard about the number of students turned out by Indian Colleges, who found it difficult to obtain remunerative employment. Were the Committee satisfied that after a number of qualified chemists and scientists had been trained in the proposed institution, posts would be available for them? He noticed that a reference was made in the memorial to the part that it was hoped the native Princes would take in assisting the scheme, and something was said about their co-operation with the Government of India. He should like to know what was in the mind of the Committee in relation to this aspect of their scheme, for anything like an effort on the part of the Government of India to influence the native Princes to contribute to it might be misunderstood. Anything like bringing pressure to bear upon them was of course out of the question. Then there was one branch of the proposed institute described in the scheme as the Philosophical and Educational, about which he had some misgivings. It was proposed to expend sixty thousand rupees a year upon the salaries of professors to teach such subjects as methods of education, ethics and psychology, history and archæology and so on.

The Hon. Mr. Justice Candy responded to the invitation his Lordship had given for information on certain points of the scheme. He explained in regard to his Lordship's inquiries as to the educational and philosophical branch, that the idea of the Committee was to give in the first instance a completeness and rotundity to the scheme, and, therefore, although they scarcely hoped to carry it all out at once, they thought it best to include these subjects. His own personal opinion was rather in favour of giving a more limited scope to the scheme, but their Honorary Secretary was very enthusiastic on this point, and no doubt, he would later on give to his Lordship the desired information in regard to it. As to the danger of having professors with only an insignificant number of pupils, it was intended to carry out the scheme by degrees and as funds came in, and they quite hoped that as the institution developed, the number of students would increase. There were many directions in which, he thought, employment could be found for the students who were turned out by the institution. The Medical and Sanitary Service, for instance, would supply a useful career for the students in that branch. As to the way in which it was intended to approach the native Princes, the Committee had never contemplated a direct appeal by Government. What they hoped was that the Government would express its sympathy with the objects of the scheme and give it their sanction. The appeal would then be made by the Committee, who, of course, would look only to the perfectly free and voluntary contributions of the Chiefs.

The Rev. Dr. Mackichan explained that the Philosophical and Educational branch had been included in the scheme because it was desired to give the institution the character of a University, and it was felt by those members who held that view that the institution would be wanting in that character unless those subjects were included. Dr. Mackichan answered his Lordship's enquiry as to the possibility of finding employment for the students who had passed through the institution, by saying that, whatever might be the case in other parts of India, so far as his experience went—and he had a long experience in collegiate education in Bombay—the graduates of the Bombay University were able either in Government service or elsewhere to find employment. It was, indeed, surprising how largely these graduates were absorbed. He was not aware of instances among graduates who had passed out of the College with which he was connected, of men who had failed to find honourable employment either in the service of the State, or in the pursuit of an independent profession. It was not the case in this Presidency that such men had ultimately to be content with mean employments unworthy of their education. There were many directions in which the students of an institution like that proposed would be able to find a career. For example, there must be many openings in the Telegraph service for men highly trained in electrical science, and such special training would be provided according to the draft scheme. The Medical and Sanitary branch of the proposed Institute would also train a class of men who were much needed, especially in our great Indian cities. Dr. Mackichan added that in the Native States there was also a considerable field of employment for highly-trained Indian graduates.

Mr. Bennett said he might perhaps offer a few observations in explanation of what in the scheme was called the Philosophical and Educational branch. One of the chief purposes of that branch was to train teachers for secondary and higher education. His Lordship no doubt was aware that in England, although abundant provision had been made in normal colleges for training teachers for primary schools, there was a complete absence of similar provision for teachers in secondary schools. The Bishop of London, in speaking lately upon this subject, had confessed that he himself had never been taught to teach, and that he had learnt it only by experimenting upon his pupils. It was felt that if a chair for teaching were established as a part of this institution, immediate, or at all events near, benefits would be derived in the production of a class of teachers who knew the art of teaching. As to the proposed chair of ethics and psychology, those subjects, he believed, were regarded as an integral part of a course of training in educational methods. Then as to the chair of Indian history and archæology, it had long been a subject of complaint that Indian history was very imperfectly studied, and it was hoped that in view of that fact a chair in those subjects might be endowed without drawing upon the general funds of the institution. So, too, with the chair of comparative philology. It was hoped that some wealthy friends of learning might be disposed to contribute towards the endowment of a chair for teaching some of the classical languages of India.

Mr. Padshah briefly endorsed the explanation which Mr. Bennett had given of this branch of the scheme, and said that he had found during the course of his inquiries in

Europe, that ethics and psychology were, as a matter of fact, always associated with instruction in methods of teaching.

Mr. Justice Candy having thanked his Lordship for receiving the deputation, the interview terminated.

A Bengali Lady of Letters.

MISS TORU DUTT.

Twenty years ago an Indian lady, Miss Toru Dutt, of whom I am about to write, had achieved a reputation for literary powers both here and abroad, and had won praise from even fastidious critics for verse-making in English and writing an original novel in French. Yet now, she is quite forgotten, and her name has become a thing of the past. At a time, when people did not believe in the intellectual equality of woman with man and the education of women was looked upon with suspicion the appearance as a writer of an Indian girl who was barely out of her teens, was a matter of astonishment and interest. Considering the fewness of the men who have made any mark in foreign literature, we cannot get over our surprise and admiration at discovering that an Indian lady had acquired fame for her literary skill in English and French. It would not be unprofitable, therefore, if the readers of this magazine were to know something of this woman writer.

Toru Dutt was born in 1856 in Calcutta, and was the youngest of the three children of Babu Gobind Chandra Dutt, a learned Bengali gentleman. We may conclude that this gentleman was a man of consequence as he was an Honorary Magistrate and a Justice of the Peace living in Calcutta. Of the three children, the boy Abju was the first to die. We know from what the father has written of him that the boy was perhaps the cleverest of his children. Toru had a sister named Aru, and in no respect was the practical good sense of the father more conspicuous than in the education of his two daughters. At first, both the sisters were given home education; afterwards when Babu Gobind Chandra Dutt left in company of his wife to travel in England, France and Italy, he took with him also Toru and Aru, so that they might receive a liberal education in Europe. Except for a few months in France they never went to school; but during their stay in England, they attended the course of lectures for women at Cambridge. Although Babu Gobind stopped longer in England than in France yet Toru learnt more of French literature and gained an accurate knowledge of most of the great poetry of France. Not only did Toru interest herself with the booklore of France bu she talso lent her attention to the customs and manners of the French. She loved France with all her heart, and whatever concerned France concerned her withal. It is said that when she heard of the fall of France after the Franco-Prussian war, she noted thus in her diary: "One day I found my father and mother conversing about the French king; I hastened to hear of it and learnt that the French were defeated. I was so touched that I could hardly contain myself and felt that something was choking me. I told plaintively all that I had heard to Aru, and thought, France! Why hast thou fallen? Is it because the French have become sinful and have been steeped in atheistic and gross views? Beware France! Hereafter learn to worship God and be devoted to Him. Wretched France! For thee my heart bleeds." Consider for a moment how lofty and exalted were the thoughts of a girl who was only of fifteen summers then! Prior to this she had written a stirring poem to the effect that France had not died but only swooned for a time, let the people worship her, she will be enlivened again. Toru read French poetry with discrimination and thoroughness, and her works show that her study was deep enough to result in assimilation rather than in imitation. Having employed her time in cultivating her intellect, she began at an early age to write verses in English which, being shown to her superiors, were deemed so creditable to her abilities that she was encouraged to publish them in a volume under the title of "A sheaf gleaned from French fields". Her attempt in translating various French poems in English, is considered more than remarkable when we think that an Indian girl of eighteen had not only written verses in English but had written them successfully and well and had accomplished the difficult feat of translating verse from one foreign language into verse in another. Of course there is much that may be criticised, but with such a book one does not feel inclined to turn from its many beauties to look for its faults. In spite of all deductions that can be made, she remains an attractive and delightful personage, and she has stamped enough of fire, spirit and genuineness of language upon her poetry to give it a charm. And I think most people will be at one with me in thinking it a wonderful work for so young girl—a foreigner who had only lived four years out of her native land.

For her taste in the choice of poems and the delicate grace and poetry of expression, I will quote one—Trans lation of Victor Hugo's charming Serenade beginning *L' aube nuit.*

'Still barred thy door ! The far east glows,
The morning wind blows fresh and free,
Should not the hour that wakes the rose
Awaken also thee ?
No longer sleep, oh, listen now,
I wake and weep, but where art thou !
'All look for thee, Love, Light and Song :
Light in the sky, deep red above,
Song in the lark, of pinion strong,
And in my heart true love!
No longer sleep, oh, listen now !
I wake and weep, but where art thou ?
'Apart we miss our nature's goal,
Why strive to cheat our destinies ?
Was not thy love made for my soul ?
Thy beauty for my eyes ?
No longer sleep, oh, listen now,
I wake and weep, but where art thou ?

With regard to Toru's translation of Victor Hugo's noble poems *Les Châtiments*, an English critic has remarked "It has the merit also of being a very close translation, and those who are well acquainted with Victor Hugo's fine verse, will understand that this is in itself high praise. He is so true and so great a poet that it is by no means easy for lesser mortals to give just, and at the same time poetic, translations of his verses; but those who read the following lines will, I think, admit that Toru Dutt has been rarely successful."

ABRES LE COUP D'ETAT

(*From Les Châtiments*,)

'Before foul treachery and heads beat down
Ill cross mine arms indignant but serene.
Oh ! faith in fallen things ! be thou my crown,
My force, my joy, my prop on which I lean.
'Yes, while he's there, or struggle some or fall ;
O France ! dear France ! for whom I weep in vain,
Tomb of my sires, nest of my loves—my all—
I ne'er shall see thee with these eyes again ?
'I shall not see thy sad sounding shore
France—save my duty—I shall all forget
Amongst the true and tried, I'll tug mine oar,
And rest proscribed to spurn the fawning set.
'Oh ! bitter exile, hard without a term,
Thee I accept—nor seek nor care to know
Who have down truckled mid the men deemed firm
And who have fled, that should have faced the foe.
If true a thousand stand, with them I stand.
A hundred ! tis enough ! we'll Scylla brave.
Ten ! put my name down foremost in the band.
One ?—well, alone, until I find a grave'!

Henri Heine's *Le fond du cœur* has been translated with such a true pathos and clearness of vision that I cannot forbear quoting the whole of the two verses.

'Far down in the sea, where the billows heave wild,
The moon's image trembles; while up in the sky
She glides on her pathway, calm, peaceful, and mild,
True to her mission like an angel on high.
'Thus while thou ascendest up up to thy goal,
A high law obeying, pure, stainless, and free,
Thy image, sweet child, trembles down in my soul,
For it trembles itself and heaves like the sea.'

The limits of a magazine article will not admit of my quoting nearly all the pieces that have been pronounced best by the *literateurs*. But it may be observed that the 'Sheaf' was received very favourably in India and abroad.

The father writing of the daughters says: 'In the performance of all domestic duties Aru and Toru were exemplary; no work was too mean for them. Excellent players on the piano were they both, and sweet singers, with clear contralto voices, that I seem to hear still at times. Toru had read more, probably also thought more; and the older sister, Aru, generally appeared to follow the lead of the younger; but there was no assumption of superiority on the part of Toru, and the love between them was always perfect. Not the least remarkable trait in Toru was her wonderful memory. She would repeat by heart almost every piece she had translated, and when there was a hitch, it was only necessary to repeat a line of the translation, to draw from her lips the whole of the piece in the original. She read much, and read quickly; but difficulties were never slurred over, for dictionaries and lexicons of every kind were consulted till they were solved, and the consequence was that the explanation of hard words imprinted themselves, as it were, on her brain, and were never forgotten. Whenever we had a dispute about a sentence or expression in Sanscrit, French, or German, in seven or eight cases out of ten she would be right. Sometimes I was so sure of my ground, that I would say, "well, let us lay a wager;" the wager being generally a rupee. It was very pleasant to me to watch her when she lost-first a bright smile, then thin fingers patting my grizzled cheek, and then perhaps some quotation from Mrs. Browning, her favourite poetess, such as—"Ah, my gossip! You are older and more learned, and a man."

Toru Dutt was a woman of wide culture and her acquaintance with the German and Sanscrit langrages at such an early age, adds more to her glory. The "Indian lyrics" published in 1882, won for her a worldwide fame so much so that both English and French authors spoke highly of the book. The poem was so well written that an English reviewer went so far as to say that Toru Dutt would have equalled George Eliot of England or George Sand of France, if she had not met with a premature death. This was no mean praise for an Indian lady.

She returned to India and betook herself to reading Sanscrit. She finished such books as *Ramayana Mahabharata* and *Vishnupurana*. in a short time and also translated into English two stories from the *Vishnupurana*. Toru Dutt purposed to translate into Bengali Mademoiselle Clarisse Bader's *La femime dans L'Inde antique* but before she could get permission from the authoress, the inscrutable Fates snapped the chords of her life and she died on the 30th August 1877.

Toru made over to her father the Ms. of an original novel written in French, which was published in Paris in 1878 under the name of *Le journal de Mademoiselle d'Arvers*. It is difficult to estimate the worth of the book as it is in a foreign language, but we have only to look at the French papers to see how many first-rate judges have borne evidence to the excellence and purity of the French. It is essentially the work of a young girl, and in it is stamped the novelist's own character. A writer has observed that few writers would care to be judged by their first work, yet few even of those who have already won their spurs could have made the last few scenes so truly touching. There is a simple pathos in them that goes straight to the heart, and the picture of the child-mother on her death-bed, dying when life was at its brightest, will long linger in the memories of those who have read it. The book is a fitting memorial of the young girl who died so full of promise, just as with her heroine, when womanhood was dawning, and life was sweetest, while a bright future lay before her."

One word more about her—Toru Dutt not only identified herself with Europeans, but adopted their habits, languages, manners and religion ; she always travelled in European countries and loved to read the literature of Europe. Yet while doing this she did not forget her nationality ; she was proud and fond of her native country, and of its history and literature.

It is a pity that this is by no means always or even often the case among the educated Indians. Many of them lay aside all interest in their own country and learn to despise the land of their birth; but it may be said to the credit of Toru Dutt that she loved and clung to her own country, though adopting all that she found good and admirable in Europe. If we may predict the man from the child, the flower from the kernel, we may surely claim to say that one who at twenty years of age could produce such a book as *Le Journal de Mademoiselle d'Arvers*, would have risen higher and higher in literature till she had acquired an immortal name for herself.

Agra N. W. P.,
"Gargari Villa,"
10th August.

BENOY VEHARI MUKERJI,
B. A., B. Lit., (Chicago).

The Study of History by Indians.

(*Continued from p.* 195.)

Having said a few words about the proper study of history by Indians, we may now proceed to make a few observations on its place in the present university curriculum, and to offer a few suggestions about its improvement. History is studied at present in the most haphazard manner by our students. There is no method, no connection, no graduation, in the courses of history prescribed by the University during all these years. A student at present learns the elements of the histories of England and India for the Matriculation, mostly from dry cribs and cram-books. The year after his Matriculation he has to read a general history of either Greece or Rome. During the second year, he is made to lie fallow. During the third and fourth years, that is, for his B.A. examination, he has to study selected periods from the histories of England and India, in books like Bright and Meadows Taylor. With this amount of historical study and knowledge he gets his B.A. degree. If he aspires after the M.A. degree the university asks him to get up a period from the modern History of Western Europe; but he must also study with history the not very obviously connected subject of philosophy.

From this, it will be easily seen that there is no method or system in the study of history as prescribed by our university. One year's course does not lead up to the next year's; nor does the student acquire any notion of the unity or connected character of all history. From a small portion of modern history, he is sent back to a still smaller portion of ancient; and from the latter, he is referred back to disconnected periods of one or two histories Asiatic or European. Of universal history, he has no notion whatever; and he cannot know the true bearings of the history of the countries and periods that he has learned. It is like making boys learn the map of England or India without ever showing them the map of the world and the positions which these countries occupy in relation to other countries. No one is so absurd as to teach the separate and detailed geography of any country to his pupils without teaching them first an outline of the general geography of the earth, yet the absurdity of entirely ignoring a general sketch of the history of the world in our educational system is not only not seen but blindly persisted in. The result is that the students never acquire the sense of historical proportion and perspective, and the little knowledge they have acquired of the history of some countries remains an undigested disconnected and useless mass of mere facts and dates. They learn, for instance, the history of Greece with all its details of the wars and petty strifes of its various states; possibly they learn also a few facts about Greek culture and civilization. But of the real place which Greece occupied in the ancient world, the services which Hellenic civilization rendered to humanity at a critical period of its growth, its relation to the preceding civilisations of Egypt, Babylon, Chaldea, and Persia, on the one hand and on the other, its all-pervading influence on later European civilisation in nearly all countries, so much so as to make a very cautious thinker like Sir Henry Maine exclaim "nothing moves in this world that is not Greek in its origin," of the posthumous life, so to say, of Greece in other countries—of all this he is entirely ignorant. And he has to thank his University for this ignorance. For the last few years, he is able to study the history of Greece for some centuries at least; but formerly, he was asked to dip only into small periods like that of the Pelopconnesian war or the reign of Alexander the Great.

Nor is the university to blame for merely prescribing in an irresponsible haphazard manner historical courses. The ways in which it tests the historical knowledge of the students are no less haphazard and faulty. Look at the examination papers in history for the last fifteen years and you will find the most perplexing and hopeless shifting of standard. Sometimes mere facts aud dates are insisted upon; sometimes quite the opposite extreme is reached and questions about the philosophy of history are asked. One year, an examiner, having a hobby about the constitutional or the social side of history, is allowed to run riot with questions about them to the detriment of everything else. The schools and colleges naturally take their cue from the University and they are not much to be blamed if they attach greater importance to preparing their students to meet well the vagaries and hobbies of the university examiners than to the sound teaching of the subject according to their own views. They are judged by their successes at these university examinations and they cannot afford to be independent of these. They aim much more at passing their students at these examinations than at imparting to them sound historical knowledge according to the most approved methods.

It has been proposed to change the M.A. course in history and a good deal of discussion has followed. There is no doubt whatever that a change is needed in the M.A. course, but to change merely that will be but tinkering at reform. The history course for the four years of B.A. ought also to be changed and brought in line, which at present it certainly is not, with the M.A. course. The lower course should lead up to a higher and be a sort of preparation for it; so that an M.A. in history may be well-versed in the general march of civilisation in ancient as well as in modern times, and be also well acquainted with the history of special countries and periods. His historical studies during these six years ought to equip him with such historical culture and to furnish such a sound basis as would enable him to be a good historical researcher and writer. The want of the critical faculty is generally complained of among the Indians. But if this faculty is developed in their university studies the Indians will show themselves as capable of critical scholarship as any others. The want of the scientific sense has been as much marked from early times among the Indians as their want of the historical sense. Yet we now see great scientific geniuses rising among us and attracting the attention of the world. Why should we not then have great critical historians from among the university educated young men?

Our university has at last opened its eyes to the defects in its history course, and is trying to amend the M.A. studies. These studies should not be of the superficial nature that they have been for a long time. If the Indians are to be introduced to the new critical and scientific methods of history which are now being followed everywhere in Europe and America with such excellent results, surely this ought to be done when they are studying for the highest degree examination of our university. We must in this matter follow the example of the West. The entire revolution in the study of history brought about at Oxford during the last thirty years under the influence of men like Bishop Stubbs, the late Professor Freeman, Prof. York Powell and others, and the rise and growth of the Oxford school of history, which has already produced so much useful work, ought to stimulate us to some kind of effort in the same direction. And we think the need for it is still greater with us than in Europe. There are vast periods of Indian and Asiatic history which have never yet been treated and which still await worthy historians. The collection of materials for many of these periods has been taken in hand and is growing apace. To take an instance, the various Persian historians of India have been made accessible in good editions by the Bengal Asiatic Society in its Bibliotheca Indica. But where is the new critical history of Mahomedan India based on these? Elphinstone's history, written sixty years ago, is still the only standard book. Is it so utterly impossible for an Indian to write such a work if properly trained and equipped? When we look to what Indian scholars have done in other fields, we cannot despair about this.

To make a good beginning and to bring about the desired reform in our historical studies, it will be suggested that the university should prescribe for the M.A. a period of history to be studied from the original sources, on the lines of the studies for the tripos at Oxford. There are many periods which can be so studied without great trouble and the materials for which are accessible in print. The long and eventful reign of Akbar, if studied by a zealous student from the original sources will not only make him much better acquainted with that glorious period of Moghal rule than if he read only the ordinary text-books, but will also enable him to study critically any other reign of Indian history. The great original histories of Abu Fazl, Badoni Nizam-ud-din and the *Tarikh-i-Alfi*, if studied together and compared and collated, will furnish a mental discipline very valuable for scientific history. Or take the history of the Mahrathas. The original *bakhars* or chronicles have been nearly all printed while the Government has thrown open the Poona Duftar containing rich additional historical materials to earnest enquirers. With all these a student can study Mahratha history now in a way it has never been studied or written before. Or take the history of the British rule. All the text-books repeat certain so-called facts about Clive or Warren Hastings which have [illegible] been proved to be utterly false by means of original documents and records preserved in Government archives. Why not prescribe the period of early British rule to be studied from the original papers published by Mr. Forrest and by Mr. Pringle from the Bombay, Madras and Calcutta Secretariats, or by Sir G. Birdwood, Mr. Danvars, Mr. Foster, from the records of the India Office in London and many other older works? Unless the University encourages such critical studies the stigma of countenancing superficiality will never leave it, nor will Indian students be ever initiated in real scientific methods of history.

Hibernian Hints for Indian Instructors.

WE have referred elsewhere to Mr. Louis Daly's report on the Irish district, the education of which has the good fortune to be under his charge. In the whole annual report issued by the Irish educational authorities, this is by far the most suggestive and readable contribution, and we therefore proceed to quote such passages as seem to us to be capable of application to Indian conditions, without scruple and without apology. As may be seen from the introductory remarks of his report, this Inspector has an eye to the picturesque, and the good taste which those remarks evince, is turned to the benefit of his district. After noting its imposing ranges of hills, its fertile valleys and well-wooded streams with the ancient castles that crown the emerald heights, he touches lightly upon the village of Blarney (*haud prius ignotus*) with its new schools, and thence passes naturally to the generally forbidding aspect of most school houses and grounds, so out of keeping with the flattering expectations aroused by the famous name of Blarney. He cherishes the fond belief that in the field-labourer's stolid soul there is now springing "a taste for floriculture," and how is this budding æstheticism, he asks undignantly, to be cultivated and brought to its perfect blossom, if the youthful Paddy is educated in the squalid circumstances and dreary monotony that mark the buildings where he woes so unpromising a Minerva. Lapsing into Greek (a practice which the authorities evidently do not regard with enthusiasm), Mr. Daly complains that teachers are too apt to regard all duties which do not fall within school-hours, as *en parergoi* (ἐγ παρέζγῳ) *i. e.*, as bye-works. Hence the ordinary master proves callous to the calls of floriculture and the nascent genius of the embryo Paxtons among his scholars is nipped untimely in the bud. Mr. Daly has spoken a true word, and not a few among our Bombay teachers will do well to take the hint, which our sense of their intelligence prevents us from unduly emphasising.

In regard to his visits to schools; Mr. Daly has perhaps been more fortunate than are some Indian Inspectors. It is his happy privilege to relate that his schools are clean and tidy;—all of them—once a year, on the day on which he comes to examine them! *O si sic omnes*! For the teachers he has unqualified general praise, tempered by very drastic specific condemnation. He praises their work and conscientiousness in school hours, he condemns utterly their lack of intelligent method and their neglect of preparation out of hours. Most teachers, he says, the trained as well as others, regard the science of education as so much mental lumber, the only practical use of which is to secure promotion. In plain words, they make hardly any effort to intelligently apply the instruction received at the Training College. In his treatment of the lazily inefficient as opposed to the incapables, Mr. Daly adopts a course no less suave in manner than effectual in result. Such persons "are accorded a well-earned, if involuntary, retirement from further scholastic labours." '*Accorded*' *and* '*well-earned*' are good, distinctly good! After the lazy ones come the helpless ones, and these Mr. Daly does not believe in lifting over or shoring through the stiles of duty. He protests against the compassion and local feeling "which by a strange perverseness can always be enlisted on the side of a useless teacher, involving a serious wrong to the children committed to his charge." A school exists, he points out—and truism though the remark be, it embodies a fact which certain classes are as loath to recognize in India as in Ireland—a school exists for the education of the children attending it and not as a means of livelihood for the teacher.

When he comes to deal with the "attainments" the Inspector of N. E. Cork is at his best, and the most pungent as likewise the most instructive of his strictures are those made on the "Three R's" and what by the irony of fate is called in our Bombay codes "general knowledge"—"specific ignorance" would be a truer descriptive title. Mr. Daly's points are briefly these. Few teachers read well and explanation is neglected or given in erroneous or mechanical ways. Object lessons are a farce and consist simply in unrolling a chart depicting some unknown animal and leaving the children to stare in weary surprise while the "teacher" gabbles off various irrelevant facts about it. In writing no real instruction nor supervision nor correction of errors is maintained and the hapless infants are left to "clutch their pens" in any way they choose. In letter-writing supposed applicants for a situation refer to the weather and conclude with remembrances to the employer's female relations, at the same time loading him with unusual, if perhaps not unmerited, titles of respect. These last faults are venial enough and do not really reflect on the scholars, but they do reflect on the ignorance and carelessness of their masters. The want of originality and the errors in parsing and spelling which occur in such letters show plainly enough the unintelligent way in which the subject is too often approached and the utter incapacity of the teachers in applying formal "book" rules to the practical requirements of actual life. How many of our own masters can write a *correct* English or vernacular letter applying for something else than transfer or promotion? Mr. Daly particularly condemns the mischievous practice of loading up children's memories with 'meanings' and 'synonyms' in stereotyped lists as a substitute for genuine explanation. As he shows, the evil effects exercised upon reading by such a course are unmistakeable. There is no expression or modulation in the voice and the reader is evidently dead to the real sense of what he reads, though he may be able to fire off synonyms by the dozen when asked for the explanation of individual words. Geography suffers even more than reading from mechanical teaching. A superficial excellence indeed is attained in that the descent of the pointer in a child's hand on the name of a place simultaneously with the utterance by the examiner of that place's name is a phenomenon common enough not to seem miraculous. But ask the child if he knows a tributary when he sees one, or the name of the mountain range that looms up at his very back-door, and the odds are that he will not be able to answer. In their estimate of history Hibernian youth are evidently of one mind with the immemorial Aryan of India's coral strand. That is, for all practical purposes their interest in history is *nil*: at an rate, Mr. Daly can find nothing to say of it,—good, bad or indifferent. May we hazard the suggestion that the Milesian and the Vedic intellects agree in considering our fact as good as another and that which is not fact as better than both?

With a hearty approval of his exposure of the uselessness for educational or any other practical purpose of "arithmetical legerdemain," as of his suggestion for an oral test in arithmetic for the higher classes, we take unwilling leave of Mr. Daly and his tiny corner of County Cork. The district contains indeed 'multum in parvo, of instruction and of warning for all educationalists, Hibernian or Indian. We shall look forward with interest to Mr. Daly's subsequent reports, which, we trust, will not be pruned of their youthful vivacity, and meantime we thank him for illumining the arid commonplaces of an official blue-book with a ray of that light which never was on land

Examiners' Notes.

We have received a copy of the report on Secondary Education in Scotland for the year 1898. The greater part of it is taken up with criticisms of the performances of the candidates who appeared for the various 'certificate' examinations. These certificates are given to scholars leaving school and are of two kinds, Higher and Lower. For those who aim at and obtain 'Honours' in the Higher course a special 'Honours certificate' is given. The first point to which Sir Henry Craik draws notice is an "abuse of the whole examinations," *viz.*, that of sending in candidates at 11 or 12 years of age. Obviously children of this age cannot be generally considered to have reached the stage which should mark the close of a secondary school career. Yet undeterred by this consideration and often without realizing what the standards of the examinations are, teachers hurry on their pupils *en masse*. The same sort of thing takes place in India not only in the Public Service examinations but also in the Matriculation and U. S. F. tests. For instance, of the candidates who take up, say, English as a special optional subject in the U. S. F. how many understand that they are expected to have thoroughly read and digested the books prescribed? Why, we have found not a few who did not even know whether the papers were to be answered in English or Vernacular (!) and who certainly could not answer them in the former. The number of unprepared candidates or improperly prepared candidates is so great, that whether he will or not, it gradually influences the examiner's critical sense, first depressing, then deadening it, until in hopeless despair he ploughs or more often passes whole herds of ignoramuses quite regardless of the consequences. Thus the standard is inevitably lowered and as a test the examination becomes a farce.

In Scotland the number of passes in these 'leaving' examinations is very fair in the case of State-aided schools but the passes are inferior in "width of margin" to those gained by the 'Higher Schools.' In plain words, the pupils of the former institutions are content to scrape through and since quantity is too often set above quality of certificates, such schools rank in the public eye above their more painstaking competitors. The same tendency is observable among the schools and colleges of Bombay. But professors and masters will do well to remember that though the public may be gulled, the authorities are not, and that if they really wish their achievements to be commended they must bring their 'quality' up to a level with their quantity.

Some of the criticisms passed in the report on the work of the candidates are so sound and so capable of general application, that we re-produce them *in extenso* without apology. First, as regards English Grammar and Composition. "The grammar-question answers gave evidence of careful drilling (how well we know that 'drilling' in India!); but hampered as it is by the arbitrary nomenclature and fanciful distinctions which seem to be current in the ordinary teaching of the subject, it is open to doubt whether it is productive of real intellectual benefit." Now, please note that Sir Henry Craik is not here condemning the teaching of grammar, but only the unintelligent teaching of it from cut and dried manuals full of verbal quibbles and hair-splitting distinctions. Such abstract monstrosities as most grammars babble of can correspond to nothing that a child can comprehend : *verbum sab.* But to continue, "the same remark applies to analysis—which is hampered by unavoidable variety of treatment." Personally, we would take issue here on one word : if the commonsense outlines of the subject are adhered to and a reasonable nomenclature selected, the variety is avoidable. It is only when the fads of would-be grammarians and logicians are tracked through a labyrinth of words and technical terms to their darkest lairs that confusion ensues. The pursuit of the evasive 'introductory adverb' and the attempt to pen the slippery 'predicative adjective' within its duly-labelled column are tasks for intellectual convicts not for the fresh fancies of young children. Sir Henry adds that "distinctions between principal and subordinate sentences must be taught on a much more definite system and must be grasped with more definiteness by the puppil.' So be it, but has Sir Henry tried himself and is he prepared to 'spot' the wily subordinate clause wherever it may be lurking? The subject is a very difficult one to teach and yet a very important one. In our opinion analysis is as good an intellectual gymnastic as formal logic, at any rate for children from 12 to 15. But it must be taught on a *reasonable* plan, *i.e.*, the principles of thought on which it is grounded must be made clear and always kept in sight. To reduce it to the mere classification of words and clauses is to give a stone of the most repulsive and indigestible sort, when the mind is crying out for the true bread of education.

Most instructive perhaps are the *obiter dicta* on 'paraphrase,'—that peculiarly loathsome species of language-murder, which we had fondly dreamt flourished in its worst forms only in India. But apparently the juvenile Scot is encouraged to atrocities of an equally ruthless kind. Sir Henry does not venture to suggest a removal of this horror from the curriculum, he is content to try to minimize its most deadly effects. "If the pupils are to attain to any comprehension of English literature they must show in paraphrase a much greater power than is now possessed of giving an intelligible rendering of a passage of poetry, or even of prose in which the style is not colloquial." The great defect is due "to the anxiety to exaggerate simplicity of languages so far as to degenerate into childishness in books intended for the young." Such a proceeding is quickly seen through by the pupil and he resents it as an insult to his intelligence if he be a youth of spirit, while if he have little intelligence, the manœuver is certainly not calculated to arouse his interest. Above all, it "hides from him all the vigour and force of the language and renders him unable to appreciate its subtlety of meaning and its range." True, oh king, most true; but why in the name of all the company of English poets and prosaists should it be necessary to mangle, mutilate or, at best, garble in unapt contortions of a diction neither of heaven nor earth, the finest passages of our noblest writers, in order "to attain to any comprehension of English literature?" *Minime sicotur ad astra*, and we thank the kindly gods that not by such thorny wastes has lain our approach to Parnassus.

For composition the compiler of the report is, we fear, very much at a loss. The efforts of youthful Scotia in this direction are, we gather, limited to "stringing together a few simple sentences" reminiscent only of a primer. There is no freedom, no facility. And all that suggests itself to "their Lordships" in the way of improvement is to encourage "early oral training in the formation of sentences." We wonder what the subjects are in which, under their Lordships' directions, teachers have hitherto exercised the originality of the callow Caledonian. If encouraged to think and talk about the beauties of his native hills and lakes, or the romantic traditions of his people a Scottish lad at 15 or 16 should not be gravelled for lack of matter. And if he be full of his subject and really keen, the sentences and words will frame themselves and in no very uncouth wise.

In conclusion we will emphasise the following points which convey appropriate warnings to the Indian student and teacher. In translating from a foreign tongue into English, candidates seemed "unable to grasp the general drift of a passage, but put down a certain translation without asking themselves whether it conveyed any intelligible meaning and without any attention whatever to style." Indian candidates who took up Arabic, Latin, French, etc., in the late University examination will kindly note for future guidance. In Mathematics and Science the examiners repeatedly complain that "time was wasted and the risk of error doubled by doing every sum over twice, once in slovenly rough work' and again in a so-called 'fair-copy' . . . . Well prepared candidates should write out their answers so carefully in the first instance as to make a second copy superfluous." Another frequent error was the confusion of a theorem with its converse, *e.g.*, instead of showing that a certain equation represents a circle, a boy would find the equation to a particular circle and show that it was of given form. Lastly, the habit of writing down answers without taking due time to properly understand the question is still far too common.

Correspondence.

TO THE EDITOR, "BOMBAY EDUCATIONAL RECORD."

SIR,—The question raised by N. in the Karachi *Phœnix* of the 14th ultimo needs thorough ventilation at the hands of school-masters, and what could be more appropriate for the purpose than the pages of the *Record*. After drawing the attention of the examiners to the discrepancies in the vernacular versions of the passage set for translation in the last Matriculation examination, N. condemns the prevalent practice of setting a question in alternative translation with paraphrase, and observes as follows: "To judge the accuracy of a translation the examiner must have as critical a knowledge of the structure and idiom of each of the vernaculars in which the passage is set as of English itself. A merely superficial or workable knowledge can be no trustworthy guide in the matter and where the translation is judged from the English original and not from the vernacular versions it is absolutely misleading. Under the circumstances, sole paraphrase would be a much more desirable test than alternative translation; and for a standard like Matriculation or School Final paraphrase should not at all be more difficult than translation."

N.'s observations are borne out by an editorial in the *Kaiser-e-Hind* of Bombay, which is as under: "It cannot be said that the cry raised against the Gujrati passage for translation set in the English question-paper at this year's Matriculation examination is not based upon truth. The rendering of the original English passage into Gujrati is such that, however clever the translator, it is not possible by translating it again into English, to bring out the sense in many places as clearly as one would wish. It would have been better if the Gujrati rendering had been done with a little more care. To say the truth we are not at all in love with this particular part of the English question-paper. The object of the examination in English is to see, not whether the candidates are or are not able to understand Gujrati and translate from it into English, but whether they possess or not the knowledge of English up to a certain standard, for testing which there are many other better ways than the one now employed. We therefore repeat what we have said on former occasions that by setting a passage for translation as an alternative with paraphrase the University has lowered the standard of English instruction in our high schools, which accounts for the fact that the F. E. A.'s of the last generation were so much superior in their knowledge of English to the B. A.'s of the present day."

It is to be trusted that you will open a discussion on the subject in the *Record* and ask every school-master in the Presidency, who has anything to say on the matter, to give his views for publication, so that after the question is threshed out, the University authorities may, if necessary, be approached with a view to inducing them to deal with the matter.—I am, etc.

HEAD-MASTER.

Educational Notes.

THE 64th REPORT ON EDUCATION IN IRELAND (1897-98).

In Ireland the total number of pupils on the Rolls of National Schools on the last day of the Results, year 1897-98. was 798, 972. Of these 75·9 per cent. were Roman Catholics, 11·5 per cent. 'Anglicans,' and 10.9 per cent Presbyterians, the remainder being classed as 'Methodists' or 'of other denominations'.

The compulsory clauses, in the Irish Education Act of 1892, are still inoperative in many places, *e.g.* even in Dublin. This apparently is due partly to want of funds, but chiefly to slackness on the part of local authorities.

Teachers are divided, on the Irish system, into 4 grades, in which promotion used to be given by examination. In 1897, a partial re-arrangement was adopted by which promotion to the highest grade was granted after 7 years highly efficient consecutive service. The promotion to the 2nd class from the 3rd may now be similarly earned by 2 years' such service.

The remarks of Mr. J. F. Hogan, District Educational Inspector in Ireland, on the teaching of arithmetic are worth noting. He complains that it occupies an enormous amount of time and labour, and the sum total of mental training seems very small. Boys do abstruse sums in practice, evolution, compound interest, etc., but can scarcely understand what is said to them, and take no interest in intelligent reading. He considers that the importance attached to high grade arithmetic is exaggerated, and that it would be better to devote the pains bestowed on it to literary branches tending to improve the general knowledge of the pupil. Geography also, according to Mr. Hogan, must be as badly taught in Ireland, as it is for the most part in India. He has also come to the conclusion of Sir Joshua Fitch that teaching as a fine art is yet in its infancy, a and that the best things in it are still to be found out. We fancy we have heard this before.

Mr. Coyne another Irish Inspector notes that nearly all the inefficient schools in his district are those under third class teachers who have been a considerable time in service, and lack both modern training and power to adapt themselves to modern requirements. He holds for his own part that an elementary education is the birthright of every member of the community, humble and high, and that the state is responsible, in the matter of equipping its citizens for the battle of life. Hence, the state must provide efficient teaching, and the way to make its teachers efficient is first to train them well, and then to give them plenty of varied practice. Is it necessary to add that the state, *i.e.*, the people—must be *prepared* to pay for all this ?

Mr. Daly's contribution to the general Irish Ecucational report is full of lively reading and sound sense. His remarks on the neglect of explanation in connection with reading lessons and on the mechanical contrivances which many teachers substitute for genuine explanation deserve the careful attention of all school-masters in India. We hope to publish them more in detail elsewhere.

THE Director of Public Instruction has, we learn, been visiting Sind during the Xmas vacation. After spending a few days in Karachi the D. P. I. proceeded to the Commissioner's camp at Sejawal, whence, on the commencement of the new year, he travelled to Hyderabad, in order *inter alia* to inspect the new technical school which the Municipality expect to open in January.

THIS school is to mark a new departure in technical education in the city of Hyderabad. Whereas previously such technical instruction as was given, was imparted through so-called industrial classes appended to various scattered schools, the new scheme provides for both a concentration and a reformation of the old instruction. The agents of the latter were local maistris, tailors, tinsmiths and the like, and they produced work of the same type as was being done in the bazaar and, as a rule, of inferior quality, the general idea being, apparently, to train the pupils in the detailed methods of particular trades. The results were poor and the training was of little use specifically and of none as a general educative influence.

A REPORT drawn up by Mr. Thompson of Poona draw attention to the inadequacy of the existing system, and the Municipality has determined to concentrate its energies on our technical school, where boys may be instructed in the general principles which underlie all skill in handicraft, and at the same time obtain a fair literary education. Drawing and carpentry will form the staples of technical instruction——at any rate at the commencement of the school's career, these subjects being the best media for the training of the hand and eye. It is hoped that later a secondary course in which crafts may be more specifically taught, will be added.

ANOTHER interesting educational experiment in Sind is the attempt which is being made under the auspices of

Mr. Hide, Principal of the Madrassah-ul-Islam, Karachi, and Manager of Junior Palpurs to reconcile the Mirs of Sind to the English education which Government wishes their children to enjoy. Unfortunately at present want of funds prevents the establishment of a "Rajkumar College," and the best substitute for such an institution is the great Mahomedan school over which Mr. Hide so worthly presides. Whatever general objections to English education there may be, and though Karachi is not exactly the spot one would choose to widen and elevate minds stunted, and stifled in the atmosphere of the harem, there can be no doubt that the course proposed is infinitely superior to any that has hitherto prevailed. A sound public-school education, with its frank, open-air life and firm yet kindly discipline can do no boy, be he prince or peasant, any harm.

The annual report on Education in the Hyderabad (Deccan) Assigned Districts has been issued. Owing to famine and plague Mr. Patwardhan has not a very satisfactory condition of things to chronicle, and as he pathetically laments when pestilence and scarcity do not interfere with the activities of Hyderabad school-masters, the seductions of feasts and marriages take their place. The resolution on the report comments strongly on the apathy displayed by district officials towards the cause of education, as also, by the way, on the inertness of many of the educational inspecting officers themselves. The principals of training institutions in Hyderabad, we note, plume themselves on the moral training they impart, but the specific means adopted to secure this laudable object are left to be filled in by the reader's imagination. We should have been glad to have had more details on this very important point.

Reviews.

THE FOUNDATIONS OF SUCCESS.

Mr. de Brath has written a very notable book *de omnibus rebus et quibusdam aliis.* He sets out to prove the necessity of a particular form of education and to do this he finds it needful to review all the sciences and all the arts and to dust over this olio of culture a sprinkling of the Spencerian philosophy. We are not sure that Mr. de Brath quite understands his Spencer, we are sure that he has never read his Mommsen carefully. And we would suggest a reference to one of the despised school of classical masters who might brush up his Greek accents preparatory to presentation to the public. But Mr. de Brath wants no more Greek and is quite content to read his Homer and Sappho in translations, so that naturally he scorns the triviality of accents. He thinks that Babylonian inscriptions, Buddhist monuments and prehistoric stone *kraals* in Southern Africa, together with the monstrosities of miscalled *palaces* in Central America evidence more perfect forms of civilisation than do the relics of Greece and Rome. And yet we fancy that Mr. de Brath is not unacquainted with the 'visual actualities (as he would probably term them) of Asiatic and barbaric civilizations. He prefers Latin to Greek, because it is easier apparently (!) and more akin to modern languages. We do not wonder that he has committed this mistake, for Mr. de Brath's scholarship (in the true sense) does not extend beyond engineering, and every classical scholar knows that Latin both in structure and in style is a harder language to gain a real mastery of than Greek. Again, Mr. de Brath seems to be unaware of the efforts that are already being made to meet the undoubted evils and deficiencies of which he complains. We would refer him to a French work not unlike his own, "The Grounds of the Superiority of the English over the French," for further details on this point. Lastly the "practical proposals" are a trifle too practical. We do not care to enlarge on so delicate a subject, but we could wish that the scheme propounded had less the air of a commercial speculation, and in particular that the advantages to accrue to the author were of not quite so substantial a character.

With much of what is said on the demerits of present educational systems we are quite in accord and we especially commend the remarks on the teaching of history (pp. 150-151).

Books Received.

We have also received the following new books and new editions, some of which will be noticed later:—

Messrs. Blackie & Sons.—The Newton Science Readers by W. Furneaux Book 4 The Young Mechanics. 1*s.* 4*d.* Book 5 The Young Chemists. 1*s.* 6*d.* Book 6-7 Lessons On Living by H. Roland Wakefield. 1*s.* 6*d.*

The Victorian Era Series, London in the Reign of Victoria by G. Laurence Gomme, F. S. A, etc. 2*s.* 6*d.*

Sketches of the Greek Dramatic Poets for English Readers by Charles Haines Keene, M. A. Dubl. 3*s.* 6*d.*

Latin Unseens In Prose and Verse Intermediate Section Selected by Andrew Anderson, M. A. 4*d.*

Messrs. Wm. Blackwood & Sons.—Foreign Classics for English Readers, edited by Mrs. Oliphant 1*s.* each.

Cervantes by Mrs. Oliphant.

Corneille and Racine by Henry M. Trollope.

The Treatment of Our Domesticated Dogs by Magenta 2*s.* 6*d.*

Colonial Library. A Crowned Queen the Romance of a Minister of State by Sydney C. Grier. Cloth 3*s.* 6*d.*

The Impediment by Dorothea Gerard. 2*s.* 6*d.* paper.

Windyhaugh, a novel by Graham Travers. 2*s.* 6*d.* paper.

Cambridge University Press.—The Teaching of Modern Foreign Languages in our Secondary Schools by Karl Bruel Litt. D. (Cambridge), Ph. D. (Berlin) 2*s.*

Messrs. Longmans, Green, aud Co.—Studies and questions in Book Keeping and advanced accounts (Banking and Exchange) With Notes and Answers by Alfred Nixon, F. C. A., F. S. A. A. 2*s.* 6*d.*

Messrs Macmillan Co.—Siepmann's French Series Advanced, Mon Oncle Et Mon Curé, Par Jean De La Brete Ouvrage couronnè Par L'Académie Francaise adapted and edited by E. C. Goldberg, M. A 2*s.* 6*d*.

Mr. John Murray.—Among the Celestials a Narrative of Travels in Manchuria, across the Gobi Desert, through the Himalayas to India, Abridged from "The Heart of the Continent," by Captain Frances Younghusband, C. I. E. 7s. 6d.

The Five Windows of the Soul or Thoughts on Perceiving by E. H. Aitken 6s.

Messrs. George Philip & Sons.—Trigonometry at a Glance, a graphic demonstration of the various functions for class use and private study by George W. Usill, Assoc, Mem. Inst. C. E. and Frederick J. Browne, C. E. *2s.* nett.

Brush-owrk Studies of Flowers, Fruit and Animals by Elizabeth Corbet Yeats. *5s.*

Messrs. Sir Isaac Pitman & Sons.—Shorthand Class-Book with exercises and Key for use in classes. *6d.*

Pitman's Popular Guide to Journalism a practical handbook for all engaged in or seeking to qualify for professional work on the Newspaper Press, by Alfred Kingston, F. R. Hist. S. 1*s*. 6*d*.

Pitman's Rapid Series, Practical German Grammar with conversation and Copious Vocabulary with imitated pronunciation. An entirely New and Interesting method of learning German by F. Hundel, 1*s*. 6*d*.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 of 1898-99.

Poona, Office of the
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19*th September* 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. Giles,
Director of Public Instruction.

LIST OF HOLIDAYS RECOGNIZED FOR THE YEAR 1899.

The subjoined Government Resolution, General Department, No. 6487, dated 28th November 1898, and the lists of holidays are published for the information of Educational Officers.

E. GILES,
Director of Public Instruction.

Poona,
10*th December* 1898.

Holidays—

List of— recognized for the year 1899.

No. 6487.

General Department.

Bombay Castle, 28th November 1898.

Memorandum from the Oriental Translator to Government, No. 1687, dated the 15th November 1898—

Forwarding, with reference to Government memorandum No. 2597, dated the 9th September 1874, lists showing the Pársi, Jewish and Mahomedan Holidays occurring in the year 1899 with their corresponding English dates and days of the week.

Letter from the Principal, Deccan College, Poona, No. 138, dated the 12th November 1898—

Specifying, with reference to Government memorandum No. 5986, dated the 28th October 1898, the Hindu Holidays in the year 1899, with their respective dates.

RESOLUTION.—The lists of Holidays for the year 1899 should be published in the *Bombay Government Gazette* and the Civil List.

R. B. STEWART,
Acting Secretary to Government.

No. 6487.

GENERAL DEPARTMENT.

Bombay Castle, 28th November 1898.

The following are the Hindu, Parsi, Mahomedan and Jewish holidays recognized by Government for the year 1899:—

Hindu.

Makar Sankránt	13th January	Friday	1
Mahá Shivrátri	10th March	Friday	1
Shimga	26th and 27th March	Sunday and Monday	2
Rám-Navami	19th April	Wednesday	1
Nárali Purnima	20th August	Sunday	1
Janma-Ashtami	27th August	Sunday	1
Ganesh-Chaturthi	9th September	Saturday	1
Dasara	14th October	Saturday	1
Diváli	2nd and 4th November	Thursday and Saturday	2
			11

Parsi (Shehenshahi).

Jamshedi Naoroz	21st March	Tuesday	1
A'ván Jashan	22nd April	Saturday	1
A'dar Jashan	21st May	Sunday	1
Farvardin Jashan	31st May	Wednesday	1
Gátha Gáhámbárs and Pateti	12th, 13th and 14th September	Tuesday, Wednesday & Thursday	3
Naoroz or New Year's Day	15th September	Friday	1
Khurdád Sál and Valává	20th and 21st September	Weduesday & Thursday	2
Atash Beherám Sálgireh	31st October	Tuesday	1
			11

Parsi (Kadmi).

Jamshedi Naoroz	21st March	Tuesday	1
A'ván Jashan	23rd March	Thursday	1
A'dar Jashan	21st April	Friday	1
Farvardin Jashan	1st May	Monday	1
Gátha Gáhámbárs and Pateti	13th, 14th and 15th August	Sunday, Monday and Tuesday	3
Naoroz or New Year's Day	16th August	Wednesday	1
Khurdád Sál and Valává	21st and 22nd August	Monday & Tuesday	2
Atash Beherám Sálgireh	1st September	Friday	1

Mahomedan (Sunni).

Lailat-ul-Kadr	9th February	Thursday	1
Ramzán 'Id or 'Id-ul-Fitr	12th and 13th February	Sunday & Monday	2
Bakri 'Id or 'Id-uz-Zoha	21st April	Friday	1
A'shura	21st and 22nd May	Sunday & Monday	2
Bara Vafát or 'Id Mavlud	21st July	Friday	1
Jilan	19th August	Saturday	1
Meraj-i-Mohammad	2nd December	Saturday	1
Máhim Fair	18th December	Monday	1
Shabe Barat	19th December	Tuesday	1
			11

Mahomedan (Shiah).

Katle Imam Ali	3rd February	Friday	1
Lailat-ul-Kadr	5th February	Sunday	1
Ramzan 'Id or 'Id-ul-Fitr	12th and 13th February	Sunday & Monday	2
Bakri 'Id or 'Id-uz-Zoha	21st April	Friday	1
'Id Gadir	29th April	Saturday	1
A'shura	20th and 21st May	Saturday and Sunday	2
Chihlum	29th June	Thursday	1
Katle Imam Hasan	7th July	Friday	1
'Id Mavlalud	26th July	Wednesday	1
			11

Jewish.

Purim	24th Febrnary	Friday	1
Pesách	26th March and 1st April	Sunday and Saturday	2
Shábuoth	15th May	Monday	1
Tishabiáb	16th July	Sunday	1
Rosh Hosh ána	5th and 6th September	Tuesday & Wednesday	2
Kipur	13th and 14th September	Wednesday & Thursday	2
Sukhoth	19th and 27th September	Tuesday & Wednesday	2
			10

By order of His Excellency the Right Honourable the Governor in Council,

R. B. STEWART,
Acting Secretary to Government.

Books Sanctioned.

NOTICE.

The Text Book of Chemistry by Mr. Khursedji Framji Daruwala, is, under the orders of the Director of Public Instruction, sanctioned for use in High Schools.

Poona, Office of the Educational Inspector, C. D., 17th December 1898.

R. D. PRIOR,
Educational Inspector, C. D.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY (NEXT TO THE SMALL CAUSES COURT)

1. The following new books and fresh additions are available in the Library :—

2. The Library and Museum are open to the Public every Saturday from 7 to 11 a. m. (Bombay time), and on other days by arrangement with the Curator.

3. See notice on Record for February 1887, page 44.

Poona, 20th December 1898.

R. D. PRIOR,
. Educational Inspector, C. D.

Author.	Title of Work.	Publisher.	Price.		
			£	s.	d.
	Class 10A:—Catalogue of Books, &c.—				
	The Book-seller for November 1898.	Whitaker & Sons.	0	0	6
	Class 11 :—Chemistry.				
G. H. Bailey	The Tutorial Chemistry, Part I	The Manager University Correspondence College Press.	0	3	6
Do.	Do. Do. Part II		0	3	6
G. George	Practical Organic Chemistry,	Do.	0	1	6
	Class 19th Electricity & Magnetism.				
R.H. Jude, M.A.	First Stage Magnetism & Electricity.	Do.	0	2	0
R. W. Stewart.	Text-Book of Magnetism & Electricity.	Do.	0	3	6
			Rs.	a.	p.
	Class 24:—English Grammar, &c. The Child's Manual of English Grammar.	The Manager, Indian Press, Allahabad.	0	5	0
Kaye & Smith.	Practical English Grammar and Composition, part I.	The Manager, Indian Press, Allahabad.	Rs.	a.	p.
	Class 25:—English Language, &c.		£	s.	d.
W. H. Low, M.A.	The English Language; Its History and Structure.	University Correspondence College Press.	0	5	6
Wyatt & Low.	The Intermediate Text-book of English Literature, Vol. I.	Do.	0	3	6

Author.	Title of Work.	Publisher.	Price.		
	Class 29:—French.				
Weekley and Wyatt.	The Tutorial French Grammar	University Correspondence College Press	0	4	6
E. Weekley, M A.	French Prose Composition.	Do.	0	3	6
T. Barlet.	Petites Ames.	Macmillan & Co.			
	Class 30:—Geography, &c.		Rs.	a.	p.
T. A. Hill.	First Book of Geography for Indian Schools.	The Manager, Indian Press, Allahabad.	0	4	0
Do.	Second Do. Do. Do.	Do.	0	5	0
Do.	Third Do. Do. Do.	Do.	0	12	0
	Class 31 :—Geology.				
W. Watts, M.A.	Geology for Beginners.	Macmillan & Co.	£	s.	d.
	Class 32 :—Geometry.				
R. Deakin, M.A.	Euclid, Books I.—IV.	University Correspondence College Press.	0	2	6
	Class 34 :—Greek.				
T. R. Mills, M.A.	Demosthenes : Androtion.	Do.	0	4	6
	Class 36 :—Heat.				
R. W. Stewart.	A Text-book of Heat.	Do.	0	3	6
	Class 38 :—History and Biography.		£	s.	d.
Allcroft and Mason.	The Tutorial History of Rome	University Correspondence College Press.	0	3	6
H. G. Keene, M.A.	Primary History of India.	The Manager Indian Presss, Allahabad.	Rs.	a.	p.
Do.	Text-book of Indian History.	Do.			
Do.	The Making of India.	Do.			
	Class 42 :—Latin.		£	s.	d.
Mills and Jeffery.	Cicero Pro Marcello.	University Correspondence College Press.	0	3	0
Allcroft and Haydon.	Latin Composition and Syntax	Do.	0	2	6
Hayes and Masom.	The Tutorial Latin Grammar.	Do.	0	3	6
F. S. Plaistowe, M. A.	The Tutorial Latin Dictionary.	Do.			
	Class 44 :—Light.				
R. W. Stewart.	A Text-book of Light.	Do.	0	3	6
	Class 45 :—Logic.				
J. Welton, M.A.	A Manual of Logic, Vol. I.	Do.	0	8	6
Do.	Do. Vol. II.	Do.	0	6	8
	Class 47 :—Mechanics, &c.				
Briggs and Bryan.	An Elementary Text-book of Mechanics.	Do.	0	3	6

Author.	Title of Work.	Publisher.	Price.
	Class 48 :—Mensuration.		
R. N. Chatterjee, M.A.	The Indian Mensuration.	The Manager, Indian Press, Allahabad.	Rs. a. p.
	Class 57:—Physics.		£ s. d.
D. Rentoul, M.A.	An Introduction to Practical Physics.	Macmillan & Co.	
	Class 64 :—Science.		
W. Briggs, M.A.	General Elementary Science.	University Correspondence College Press.	0 3 6
A.M. Davies.	First Stage of Physiography.	Do.	0 2 0
E. Catchpool	A Text-book of Sound.	Do.	0 3 6
J. T. Mackenzie, M.A.	A Manual of Ethics.	Do.	0 6 6
Wells and Davies.	Text-book of Zoology.	Do.	0 6 6
	Class 68 :—Trigonometry.		
Briggs and Bryan.	The Tutorial Trigonometry.	Do.	0 3 6

List of appointments in the Educational Department from the 16*th November to the* 15*th December* 1898.

16*th November* 1898.—Mr. D. S. Kelkar, substantive 8th assistant, Sholapur High School, is appointed 6th assistant, Garud High School, Dhulia.

22*nd November* 1898.—The following appointments are made in the N. J. High School, Karachi.

Mr. T. M. Thadani, 17th assistant, to be 16th assistant, *vice* Mr. C : K. Khilanani confirmed in the Judicial Department.

Mr. P. L. Waswani, 18th assistant, to be 17th assistant.

Mr. R. K. Karnik, 19th assistant, to be 18th assistant.

Mr. C. H. Loda *sub.-protem.* 19th assistant, to be 19th assistant.

26*th November* 1898.—Mr. K. V. Ranade, 15th assistant, Poona High School, is appointed substantive 8th assistant, Sholapur High School.

26*th November* 1898.—The following appointments are made in the Office of the Director of Public Instruction :—

Mr. R. T. Soman, 8th clerk, to be 7th clerk.

Mr. C. A. Mehta, 9th clerk, to be 8th clerk.

Mr. R. V. Hodlur, 7th clerk in the Office of the Educational Inspector, S. D., to be 9th clerk, on probation.

26th November 1898.—Mr. J. K. Dalal, B. A., 7th assistant, Ahmedabad High School, and *sub.-protem* 7th assistant, S. J. J. High School, Surat, is appointed 3rd assistant in the Training College, Ahmedabad.

5th December 1898.—The following appointments are made permanently :—

Mr. A. R. Rege, Head Clerk, Deputy, Thana, to be Head Clerk, Deputy, Poona.

Mr. K. M. Mauskar, 2nd clerk, Deputy, Satara, to be Head clerk, Deputy, Thana.

Mr. V. V. Sathaye, *sub-protem.* 2nd clerk, Deputy, Poona, to be 2nd clerk, Deputy, Satara.

Mr. V. V. Deodhar, *sub-protem.* 2nd clerk, Training College, Poona, to be 2nd clerk, in the same College.

E. GILES,

Director of Public Instruction.

Poona, Office of the Director of Public Instruction, 15th December 1898.

Established 1864—1894. *Re-issued* 1898.

The Bombay Educational Record and Literary Journal.

Vol. XXXI.] FEBRUARY 1899. [No. 8.

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Industrial Education: a Criticism.

(*Contributed.*)

PART I.

MR. TALATI is to the fore once more, lecturing on industrial education, and this time in high company indeed, 'under very auspicious circumstances,' and the distinguished patronage of the Poona Industrial Association, with the intelligent and enterprising Brahmins of Poona for his audience, the venerable Professor R. G. Bhandarkar, M. A., Ph.D., C. I. E., as the Master of Ceremonies, and the Hon. E. Giles, Esq., M. A., Director of Public Instruction, as the President.

Mr. Talati has struck out the very original path of industrial education as a fit career for his son and a means of winning fresh laurels for himself. Here is what he himself has to say about it: " From my experience (Mr. Talati forgot to prefix the adjective 'life-long') of our educational system and its results, and from the difficulty which my pupils found in obtaining suitable employment, I came to the conclusion about 10 years ago (that was long before our worthy knight of Bethnal Green dreamt of making a speech against higher education in the British Parliament) that we should direct our attention to some thing else than Government service or the learned professions. At that time my son was about 16 years of age (and not without the requisite stuff for Government service or the learned professions, we would fain hope). I said to myself that before advising others, I should do it myself (for 'I am not like the proverbial Kajiji, who will not practise what he preaches.' Mr. Talati has himself been good enough to enlighten us in his lecture). I therefore decided to teach my son an industry." However, from personalities let us turn to the reality, from the lecturer to the lecture.

We regret to have to say in the very commencement that we have read Mr. Talati's lecture over again and again, but in vain, to find out what it is about, what the new education precisely is. What is the thing Mr. Talati and the other well-wishers of the country want in the name of industrial education? Do they want our young men to learn the lower arts? Or do they want schools to teach 'our boys' how to make soap, matches, pins, &c.? Or, again, do they want special institutions opened by the Government for teaching them virtues like patience, perseverance, punctuality, and many more. There is such a delightful vagueness in the words and in the lecture which was meant to expound them that after perusing the pamphlet a number of times we are as much in the dark about the real thing as we were ever before. A clear statement of the objects and reasons, as they say in legal phraseology, would have simplified matters. Neither the educated gentlemen composing the audience nor the readers of the *Record* needed any of those stale exhortations on the dignity of manual labour, patience and perseverance, self-denial, &c., such as are to be met with to any extent in the essays written by school-boys and prove the bane of the poor schoolmaster's existence, or those trivial illustrations of the proverbial Cadi, the half-educated barber, and the illiterate copyist. We cannot but think the last illustration a cruel hoax? Has not some unkind friend imposed upon Mr. Talati's credulity? The story looks like the invention of some mischievously inclined Parsi youth for teasing the Parbhu clerk in the Secretariat, and does little credit to the lecturer's intelligence in gulping it down and still less to his taste in introducing it in a lecture delivered before such a distinguished company and under such auspicious circumstances, a lecture that Mr. Talati trusted 'will be productive of good.'

But the very learned doctor, Prof. Bhandarkar, cut the ground from under the feet of industrial education in his opening speech. In proposing the Director of Public Instruction to the chair, Prof. Bhandarkar stated the object of the Poona Industrial Association to be twofold: 'the promotion of education (instruction rather, we would beg Prof. Bhandarkar's leave to correct) in the industrial arts indigenous to the country and the creation of the means of new instruction in the arts and processes practised in foreign countries, the products of which are in great demand in India.' For the former object the necessity was shewn in these words: 'it often happens that the trade of the father is overstocked and it becomes necessary for a son to earn his livelihood by pursuing some other occupation than that of his father.' This is admitting, not in plain words, but in substance, the fact that industrial instruction is not a desideratum. It is tantamount to saying that we have the industries and that we have men engaged in them. Only there is supposed to be some imaginary obstacle in the way of a person who wants to leave the trade of his forefathers and take up some other. This is surely different from saying that India has been suffering from a lack of industries. Probably it is caste again that is at the root of the evil. It seems therefore to be more a subject for our distinguished reformer, Mr. B. M. Malabari, or some other brave soul of like enthusiasm and energy than for any Industrial Association. A little further on, Prof. Bhandarkar proposes that 'special arrangements are required for giving instruction in the industrial arts since the system of apprenticing does not exist in the country.' As far as we see, the Indian system of learning the industrial arts is one of apprenticeship and nothing else. It is true that there are no regular industrial schools or technical colleges where pupils may be taught the theories—science, as we are fond of calling them now. But in every town or village we see little shops where the master works with a group of assistants and a few urchins who, though not apprentices in name or by agreement, are there with the object of learning the particular art pursued there, by observation and practice under the eye of the master or the other workmen. They get no pay at the starting, nor do they pay anything to the master for learning in his shop, except rendering a little manual or personal service in his household, in return whereof they have the privilege of learning the business in the most practical manner, viz., by observing how it is done by experts and being helped by the latter through the various stages, step by step, according to their progress, which, though slow, is sure and certain. It also makes them patient, perservering, and self-denying without creating any notion of false dignity in them. In short, it secures all those qualifications which tend to make a steady workman, and thus dispenses with the necessity of impressing upon their minds by oral teaching the various cautions which Mr. Talati has made such a parade of in a number of distinct paragraphs. As a rule, caste seldom comes in the way of such learners, though it is but imaginable that human nature may prevail occasionally, and ties of blood, family, or clanship have the preference over absolute strangers.

So much for the first object of industrial associations, which, as we have tried to show, does not demonstrate the necessity of its existence. In fact, it would seem the learned doctor himself was not quite convinced in his heart of hearts of the necessity, for Prof. Bhandarkar goes on to say that 'at present the only new occupation that a person may qualify himself for is that of a writer, since there are Government institutions in all parts of the country for giving literary education, so that you will find the sons of goldsmiths, tailors, carpenters, and other, giving up their hereditary occupation and becoming clerks. Consequently that field also is now so overstocked as to become a source of evil. There ought therefore to be some means somewhere of educating young men in other arts as well as in that of a writer.' So at last the cat is out of the bag. Our countrymen, themselves men of education, like the simpleton who sat on a branch of a tree and began to chop at the place where it was jointed to the stem want to lay the axe at the very root of education which alone can make the country prosperous and bring about the realization of their dream—the regeneration of India. They have got woefully mixed on the subject of education *v.* instruction; and the spectre that has driven their wits out of them is not a real demon, but an imaginary one of their own raising. Prof. Bhandarkar and his followers are frightened by Government institutions in all parts of the country for giving a literary education and by the people giving up their hereditary occupations to become clerks and writers. Will they please tell us what percentage of the population seeks a literary education, what ought to be the proportions of the literary and industrial classes to the total population, and whether those proportions have been exceeded or are the reverse at this moment. We were under the impression that one of the charges against the rulers of the country was that they spent too little on education, and that the schools were too few for the population. But it is such superficial reasoning that has been doing all the mischief, not only in the department of education, but in several others, and has blinded those who have made themselves our leaders.

There is yet another and a much more regretable fallacy at the root of this and other similar movements, to wit, that the industries would make all those who pursue them rich like Crœsus; that old story again, as we remarked in the commencement. But of that we shall speak later on. For the present let us proceed with the examination of the objects of associations like the P. I. A., springing up around us ostensibly for the regeneration of India. The reader must have seen that as far as the first object of the Association goes, it rests on a misconception. The industries that are necessary to the well-being of a nation already exist in India to the extent required, and are learnt by new pupils in the only way calculated to ensure their being learnt practically and soundly without the pupils being a burden on either the State or the public; that side by side the pupils acquire the homely and social virtues also practically instead of reading about them in books or hearing of them from the mouth of the lecturer; that, in fact, the youths are not merely taught, but trained, a truly important point; that if anything like caste prejudices come in the way of some of the pupils intending to take up a different occupation from the one pursued by the family, the remedy lies not in opening special schools or institutes forthem, but in getting rid of the false notions that have accreted to the original caste-institution; that the readiness with which semi-educated young men turn to Government service is the bugbear before the sight of our modern reformers, though we should attach small blame to the former for preferring service to low occupations, seeing that it is full of prospects, secure and more respectable than their hereditary professions, as long as their own countrymen do not pay them adequately as we shall show by and by; lastly, that cupidity has a great deal to do with the movements that are becoming the fashion nowadays.

But let us investigate the second object of the P. I. A., *viz.*, the application and invention of improved processes in manufactures and arts. It is not at all difficult to show that here too the reasoning of the advocates of industrial education is erroneous. Inventions are made, not taught. Who can teach a man to be an inventor? Were the improved processes and methods of the West the work of men who had received industrial or technical education? In fact, most of the improvements and inventions were made at a time when that particular kind of education was not even talked of. In the long galaxy of men, who have by their improvements or inventions brought the manufactures and industries of Europe and America to the present state of efficiency, how many can be said to have received industrial education? On the contrary, most of them were men of good (general) education, men who had been trained to think and to apply their knowledge and mind to the work they had found to do, with the result that they were able by the force of their intelligence and insight to improve the technique as well as the plant. And surely this is the true method in all handicrafts. It is the perfect training of the mental faculties that can invent or improve, not the mere knowledge of the machinery and the tools. The latter will only make imitators, not designers and accomplishers. The Director of Public Instruction administered a well-deserved, though covert, rebuke, when, at the end of the speeches, he 'laid stress on the fact that Government had been doing what was necessary in giving the people general education and pointed out how the good general education received by Professor Gajjar had fitted him for subsequent study as a specialist in which capacity he had recently obtained a signal success which was well known to all.' The Hon. Mr. Giles is not the man to play to the gallery, and we hope that Mr. Talati and his colleagues of the Industrial Education Company will take to heart the lesson his words are intended to teach, and, instead of vainly endeavouring to divert the efforts and attention of both the public as well as the Government to doubtful projects, they will, if they have at heart the welfare of their country, devote their time, energy, and means to improve and extend as much as possible the general education, on which depends the future prosperity of the country.

There is no denying the fact that the existing system of education (education should be education, and it is a serious mistake to split it up into general and special, liberal and industrial, and so forth) needs reform badly. Its main defects are that it is unnecessarily long, it is a little too literary, and it is not thorough. By the first defect, that it is too long, we mean that education up to the Matriculation or School Final Standard takes at present at least 12 years, 5 years to come up to the 4th Vernacular Standard, plus 7 for the A.-V. course, and that of a graduate 16, instead of 10 and 13 years, respectively, as it should. It is too literary because it was originally intended to serve for the manufacture of functionaries, clerks, lawyers, doctors, Government officers, etc. But it can be easily made scientific and practical by a little alteration. Thirdly, it is not thorough, being entirely formulated and controlled by examinations which have demoralised both teachers as well as students and not so conducted as to [illegible] for the starving population to stamp him with the hallmark of a University degree. [illegible] leaders would therefore, in our opinion. be better occupied if they devised an improved system in which the above defects might all be deleted, If they did that, the Government would only be too glad to introduce it in the place of the existing one. But if they will not do so, and merely go about lecturing and clamouring for that will-o'-the-wisp of industrial education, the Government cannot be expected to pay them any heed, and, what is worse, their own efforts to grow rich will end in greater poverty and misery for the counrty at large.

But we have not yet done with Prof. Bhandarkar's speech. Another reason urged in support of his contention for industrial education was that India was becoming an altogether agricultural country; and in that line of argument he was followed by Mr. Talati and Rao Saheb V. N. Pathak, M. A. "India," said Prof. Bhandarkar, "is fast becoming a merely agricultural country. Such a state of things cannot but bring periodical misery in its train, for agriculture depends upon rain, rain is uncertain, and whenever there is a drought, scarcity and famine afflict a country." So Mr. Talati: "But the greatest advantage (of industrial education) in India is that of reducing the miseries of famine. At present a large percentage of our population depends on agriculture, so when crops fail they do not get food, and as they have no other work they suffer much. If we have factories, a part of the population will have work whether there be rain or no rain, and crops or no crops. Thus, though there be famine in the country, sufferings will not be so general as at present." So also R. S. Pathak: "In view of the fact that fully 80 per cent. of the population of the country is agricultural and dependent on the cultivation of the soil and employments connected therewith that the country is periodically exposed to droughts prevailing over extensive areas and that its vast and multitudinous populations suffer from starvation, and all the privations attendant on famines almost every ten years, the importance, nay, the urgent necessity of developing the industries and manufactures of the country cannot be overrated. It is the interest of the government no less than that of the people to *improve and develop the industries of the country by the establishment of schools of arts and industries,* in every province and district." The italics are [redacted]ry of a Durvesh who o[redacted] Syria, and had to starve [redacted]ith a bag full of gold dollars in his girdle. At last overcome by starvation and fatigue the unfortunate mendicant lay down to die. A few days later a caravan arrived at the spot and saw the corpse of the mendicant with the dollars placed just in front of it, and the following traced in the sand :—

Though one were to have all the wealth of Jaffer,
  Without provisions one cannot a step uphold;
To a starving Durvesh in the sandy waste,
  Boiled turnips are more welcome than bags of gold.

Now, this fact of India being an agricultural country, and dependant on rain has always been made much of by our present day politicians as if it were a misfortune instead of the real blessing that it is, and the true cause of all its wealth. For, say what they may, in nature's economy agriculture is the principal, and industries and trades are but the accessories, so that the country in which the relation of agriculture and industries remains that of principal and accessory, stands on firm foundations and is truly rich ; and wherever the relation is reversed it is an unnatural state and must tend to want and misery unless recourse is had to plunder and despoiling other countries.

Let us take for instance a village with a number of householders each of whom has sufficient provisions supplied to last him and his family for two years, besides all necessary clothing and domestic appurtenances. One of the householders being an enterprising individual keeps a few months' stock and sells the rest of his provisions to a big man of some neighbouring town or foreign country, getting in exchange a goodly amount of cash as well as an extra stock of clothes, furniture, jewels, and sundry knick-knacks with which he decks out his house and children. He even keeps a carriage and pair to drive him about the village occasionally. His cupidity, however, does not stop there, and he entices by his external glitter most of his fellow-householders to part with their provisions for similar benefits through him, keeping the lion's share for himself as the recompense for his enterprise, and handing over the remainder to them. But the time soon arrives when the remaining provisions are consumed and they raise a cry that there is a famine in their village. Our enterprising merchant does not part with any of his jewels, dresses, or furniture, and at the most gives a little, say a thousandth part, or even less of his superabundant cash to buy provisions for the starving population, for which magnanimity he is not only applauded to the skies as a philanthropist, but is ten to one also decked out with some grand title by his government. The householders have hardly anything to buy provisions with, for they were robbed of nine-tenths of their legitimate property by the enterprising merchant, and what little they did receive from him was converted at the time into unnecessary finery which is now unsaleable on account of wear and tear and depreciation in value. But even if they have a few things to sell there is none in the village to give them provisions in exchange. In such a state of misery the people of the neighbouring towns and villages may if they are on good terms come to their help and send them what little they can spare until many of the children and old people, and some of the young men too, clear off the face of the earth and the two years expire when they get their new supply of provisions. But if the neighbouring towns and villages, in fact all the cities, towns, and villages of the country had a similar way of living and trading as the village, thanks to the enterprising merchants and manufacturers amongst them, it is apparent that instead of helping the starving householders of the famine-stricken village, they too would sooner or later add their own small voice to the cry of famine, and the whole country would be in the clutches of death and misery, notwithstanding that each city, town or village had sufficient provisions to last the population for two years. The only relief possible under such circumstances would be from foreign countries which would, in a great measure, depend on the relations existing between them and the famine-stricken country, and the good intentions or otherwise as well as the circumstances of the inhabitants thereof. If they have no surplus provisions, or if they depend for their provisions on the famine-stricken country, no relief can be expected from that quarter.

India, nowadays, is in the state of the householders of the famine-stricken village. It is a country so vast in extent and population, possessing such varied climatic conditions, and producing so much grain that besides sufficing for its own population it can feed millions upon millions of the populations of other countries. We have not known of an instance hitherto in which rain has altogether failed the country for two successive years in all its parts. Nor have we heard of all our rivers having been dried up in any year. So that with the ordinary produce of one year sufficient to last the population for some years, at least two for certain, and with a network of railways securing ready communication with all parts of the country, it is difficult to understand how the country can suffer from famine at all, and more difficult still to believe that one single year of drought can cause scarcity and famine. It shows on the face of it that there must be something extremely unnatural in our economic conditions. We are perhaps so regardless of the country's welfare that we take no thought of how much should be wanted for the population, and how much could be spared for trade, a matter of the first importance. All the same we allow our capitalists to sweep off the produce from the country and swell their already full pockets leaving next to nothing for the inhabitants. When nothing is left in the country, and the harvest fails partly or entirely in any single year, we say there is a famine and attribute it to India being a purely agricultural country and want of industries, whereas it is nothing but sheer want of prudence.

Famine really means that the country has nothing to fall back upon when a harvest fails. But harvests have not been known to fail entirely and all over the country for two successive years. And if the failure of single year's harvest can create famine it is the sign of the country having no reserve. We allow not only England, the ruling power, but Greece, France and other foreign countries to take away as much provisions out of the country as they can without the least restriction. And if you sell your grain and provisions through agents whom you thoughtlessly enable thereby to hoard up fabulous wealth, if you want to have industries and manufactures instead of agriculture to enable a few enterprising persons to become millionaires to gloat on their bags of gold and diamonds; why then you have to abide by the consequences. When famine breaks out in your unfortunate country, you cry for grain and provisions. But there are neither provisions nor the means to buy sufficient quantities of them from elsewhere, for the millionaires, the guardians of those heaps of metal and stone are never made to disgorge a thousandth or even a ten thousandth part of their hoarded wealth, which in truth is no *wealth*, being the means, or state not of *well-being* but of misery.

Will our well-wishers, who have been attributing this state of things to India's being and becoming an agricultural country, furnish statistics on the following points? The total agricultural produce of the country in an ordinary year, the quantity required to feed the population for one year, the actual year's consumption by the people nowadays, the quantity of provisions exported for trade, the proportions of the value of the provisions exported coming back to the population and going into the pockets of capitalists, lastly, what percentage of the profits that go to the latter keeps circulating among the people, and how much is put away every year as treasure without benefitting the population. It will be then found that a large portion of the capital employed in trade is really unproductive, inasmuch as it produces no provisions or necessaries but metal for metal. Produce, then, is not the only factor in the problem. Expenditure, rather the way in which the produce is disposed of, *i. e.*, distributed amongst the workers is a much more important factor. The prosperity of a country depends therefore not on diverting the majority of the population from agriculture to useless manufacture and unnecessary industries producing needlessly large quantities of things 'from a pin to an anchor' as said by Mr. Talati, but on so arranging the economic conditions as well as those of trade that India may not be a loser by her transactions with other countries and that no portion of its produce be converted into wealth to be stored up by the enterprising gentry, whether merchants or manufacturers. But that seems impossible to attain under the existing circumstances. Only when a way can be found to stop the self-aggrandisement of our traders who, like the monkey in the fable of the cats and the monkey feed fat and wax wealthy upon the labours of the agricultural and industrial classes, will India cease to suffer from famines.

How could our educated countrymen be so misled as to believe that if individuals become millionaires, the country grows correspondingly rich and prosperous. That country is truly prosperous, all the inhabitants whereof get sufficient to eat and wear, and to shelter them from heat and cold. 'Wealth to be of service to man must be distributed. Great wealth with a few and poverty with many cannot create a happy state. It can be a blessing only when it is so distributed as to be a common possession,' as Principal Fairbairn said the other day. And that means a fair co-ordination of agriculture, industries, and trade. Unfortunately the conditions of free trade now prevailing with us tend exactly in the opposite direction to make a few, and those only the intermediaries enormously rich, and the masses, both agricultural and industrial, poor to the point of starvation. To make therefore industries and commerce the principal and agriculture an accessory is to bring ruin on India. In a country administered on correct principles, the population ought to live on agriculture not on industries or commerce. The latter, with the object of producing wealth, is a delusion and a snare. Its object is and should be only the exchange of commodities. So also with industries which, like commerce, should only be pursued as far as they are necessary for the purpose of agriculture and domestic wants. To go the least step further in either of them is false economics. They are at the most like the drones in the hive rendering perhaps a little service to the common wealth, but all the same eating up and consuming the provisions. Agriculture, therefore, is not to be blamed for India's poverty. On the contrary, it is the country's and the world's mainstay. But each one of us is prone to pose as a philosopher and to lay the burden on any but the right horse. It is so convenient and at the same time safe to blame rain and nature, for they, like dead men, tell no tales.

University Terms.

THE present arrangement of terms in the Bombay University is probably an unique one. At least we hope so, for the loss of time and energy, which is incurred under the existing system in Bombay would be positively disastrous did it also take place in many other so-called seats of learning. Here it is true the loss is great and the consequences which spring from it are evil enough, but we bear up wonderfully, and have learned to endure with extraordinary equanimity the spectacle of 4 months' work dissipated by 4 subsequent months of—what shall we say? Not play, for the nominal vacation occupies barely half the time: not study, since no studies are pursued. It is indeed difficult to characterize adequately a period, the chief feature of which is intermittent examination fever tempered only by an almost entire absence of useful industry. Occasionally a young and reckless college 'professor' makes a shame-faced attempt to gather round him the demoralized atoms of what was once a class, but he does it *per famam at populum*, and the odds are that he will be carried out black in the face from his fruitless attempt to compete with the sparrows in chattering to empty benches —or be sneered down by the *blase* idleness of some senior who cares for none of those things.

Let us realize the situation. A body of persons, more or less competent, having decided that the presidency is to have a University, plump their bantling down in the sea-port town known as Bombay, and proceed to christen it 'The Bombay University,' thereby causing many innocent people to believe that the University belongs to the city after which it is called, and that its general arrangements are to be governed by the wishes and convenience of the fortunate inhabitants of that town. Now beautiful as Bombay is, its climate has certain drawbacks which are most apparent at certain seasons. "Choose, then, those seasons for vacations," cried the pious and sympathetic founders "and release the panting student from his lowly bench and the perspiring professor from his unappreciated 'chair.'" No sooner said than done, and so through each recurrent Bombay hot season the pupils scatter to their native *'gaums'* and their teachers to the breezy heights of the local Simla, where for the nonce among the *di minores* they may drop the man of learning in the social *moriarch*. As regards the professors, this course perhaps softens their manners and teaches them to be less 'farouche,' but we are not sure that it confers similar benefits upon their disciples. But we digress. We are discussing now, not the manners or want of them among professors and scholars, but the period set aside by our ancestors for the cultivation or relaxation of them, as the case might be. This period they called, in their wisdom, 'the vacation,' as who should say 'the time consecrated to vacuity.' But, also in their wisdom, realizing that, like all other pleasures, even vacuousness will clog, they did determine and ordain bounds to this idleness, thereby implying that, those bounds once past, the term of industry should spontaneously ensue. Half their just hope the gods granted them, but half they scattered to the mocking winds. 'T was granted that the studies remitted in April should be resumed in June, but, lest excess of virtue should beget presumption, it was decreed by Fate that from October the blight of examination should stay the zeal of every aspirant until the hightide of Christmas had come and gone!

A few there be, no doubt, the opening blossom of whose tender learning is not fouled and shrivelled by that same blight, but they only await the inexorable doom deferred by accident until another year. And what of these men? Is not their due expansion nipped, are not their energies deadened by the curtailment or deprivation of that very nourishment on which they most depend? How may they batten on the honied words of a wisdom that have ceased to flow, or flow but in all too scant and sticky drops? How shall their note-books wax fat with the marrow of Merivale and a plenteous harvest of 'instructive facts' be gathered in full sheaves into their garners? Verily (somewhat abruptly to change the metaphor) the hungry sheep look up and are not fed.

"But wherefore all this pother?" the mere man in the street may ask. "Cannot your students study for and by themselves? Cannot the professors devote a part of the time that they apply to social culture or to the discharge of duties, not their own, to at least the direction of their pupils' efforts, if not to the more particular labours of the lecture-room? And are there not other and scarcely less famous Universities in England (to wit, Oxford and Cambridge) in which an interval of nearly 4 months' occurs between the Academic terms? And is not the examination-fiend as rampant there as here?"

The two first of these questions we can only treat with silent disdain. They argue an abysmal misconception of the first principles of the Bombay academic economy such as no words of ours could plumb, and are pardonable only in the utter innocence of the questioner. His other questions are more practical. All the world has heard of the 'Long Vacation' of the two English Universities, and not a few foolish persons have seized upon it as a fit object of attack. But since their folly has been patently demonstrated, or since, at any rate, Oxford and Cambridge survive and flourish in spite of the Long Vacation, if not because of it, why may not Bombay be equally happy? Now, if the man in the street presses this question—and he probably will, for there is nothing he likes better than an analogy, however belated or mistaken—we must remind him that he is one of the multitude, and, as such, shares the multitude's incapacity to distinguish. At both Oxford and Cambridge the long vacation does not precede but follows the examinations, part of which, indeed, often take place during it. The actual business, moreover, of looking through the candidates' papers is in many cases completed, if not wholly carried on, by the examiners, after the academic term has closed. Thus, the general work is not disorganized to the same extent as in Bombay, although, of course, the examiners are in this way compelled to forego a certain portion of their usual holiday. Again, it must be noted that in the two English Universities there is no pretence made as to the nature of this 4 months' interval. It is vacation pure and unmixed for those who choose to make it so; there is no question of Collegiate work, nominal or otherwise. We are, of course, aware that at Oxford honour-men devote a large part of the period to work which is often of the very best kind. But this is entirely voluntary, and done not in college rooms under the eye of a tutor, but where one will, at the Lakes, in the Highlands, on the coasts of Cornwall and Devon, or wherever the undergraduate retires for his Summer outing. Cambridge, it is true, has introduced a long vacation term, but chiefly for honours men, and the University, as such, takes no official cognizance of it. Now, in Bombay we have first our 2 months' holiday, and then a non-descript period of 2 more months, nominally known as term, in which practically no work is done. Those students attend the University whom examinations force to be present, the rest straggle in, and come and go almost at their own sweet will.

Enough has now been said to show the evil and absurdity of the present system, but it is not easy to suggest a simple remedy. The main stumbling-block is the Bombay climate, which in May and part of June and again in the latter half of September and the whole of October is certainly not conducive to useful study. Hence, a large number of Colleges and Institutions affiliated to the University being situated in the town of Bombay, it has seemed fitting to fix upon these months for rest and recuperation. But it seems to be forgotten that the climatic conditions of Bombay City are not those of the general presidency, and also that the University belongs not to the city, but to the whole conglomeration of countries and nationalities summed up in the name 'Bombay.' The present arrangements by no means suit many of these, and, apart from the waste of time which now takes place, the fact that their convenience is sacrified to the interests of the inhabitants of the capital is a subject of not unjust complaint. The other main difficulty is the date of the examinations. It seems advisable that these should be held at a time when the heat is not excessive and when tents and *mandaps* can be erected for the accommodation of candidates. Thus at one stroke all the months from May to October inclusive are excluded, since during them the heat or the rain would render life a burden to dwellers in tents.

On the other hand, it should not be impossible to arrive at a *modus vivendi* and withal to fix the examinations at some generally suitable date. At the present stage of the discussion we will not do more than throw out a few tentative suggestions, meanwhile inviting our readers to consider the question carefully and to let us have the benefit of any proposals they may wish to make. At the outset we will say plainly that we see no good reason why a vacation should immediately precede the examinations. This practice, in fact, reverses the natural sequence of things, in accordance with which examination should follow work as a test of its quality and be in turn followed by the well-earned rest of a vacation. Also it conduces to a system of "intellectual stuffing" which is perfectly ruinous to the mental digestion. Students, in fact, retire to cram by heart the contents of well-filled note-books, the whole of which is vomited in a crude and undigested mass at the subsequent examination. Nor, again, are we conscious of any vital necessity of having terms and vacations of equal length. For instance, the 'rains term,' might be of 3 months', the other of 5 months' duration—as is, indeed, the case at present, though, as we have seen, a large part of the longer term is now wasted. And would it be impossible to hold examinations in March and the first week of April? Plenty of Europeans live in tents at that period of the year, and there seems no valid objection to native candidates following their example for a brief space. Nor, after all, are tents a *sine qua non*: there are many large buildings in Bombay which could be put at the disposal of the University. and the candidates might be distributed among them. Of course, this alteration would not of itself do away with the waste of time which now occurs in college work, but in any case the period of stagnation would fall at the end, and not at the beginning of a term, and thus its baneful influence would be minimized. For the rest, the remedy lies in the better discipline and organisation of the College staff. That the "University year" might need re-arranging cannot be held a serious objection, except, perhaps, by the members of the Registrar's office.

With one more hint we will leave the matter. May we not look forward to an era of decentralization, when the University examination will be held simultaneously at the chief towns of the five great divisions of the Presidency, Bombay, Karachi, Poona, Ahmedabad, and Dharwar? The first steps have already been taken, and it is always *le premier pas qui coute.*

Obituary.

The late Reverend Dugald Cameron Boyd.

THERE are many still in Bombay who will hear with pain of the death of the Rev. Dugald Cameron Boyd, for so many years the greatly beloved Minister of the Free Church of Scotland in this city. He has succumbed to an affection of the heart which had made him very much of an invalid for several years past, though it was only in the spring of this year that he was constrained by the state of his health to resign the office of Secretary of the Scotch Anglo-Indian Evangelisation Society. Mr. Boyd left us in 1877, after a pastorate in Bombay which had extended over fourteen years. For the last three years of that period he had held the office of Registrar of the University here with great and general acceptance. His appointment by the Syndicate to that office, with his confirmation in it by the Senate, is only one of many proofs that might, if there were need, be adduced of the wide respect he enjoyed among us. Mr. Boyd was an influence in Bombay, and an influence for nothing but good. For many years he was with the late Rev. Dr. Macpherson, Joint Honorary Secretary of the Scottish Education Society's High Schools, and by his valuable advice and hearty co-operation did much to weld them into their present position of efficiency. He continued, after he left Bombay, to take an interest in things outside of, but, as he felt, supplemental to, his work proper as a Minister of the Gospel. Shortly after his return to Scotland he was ordained to the charge of the Free Church at Portsoy, and he acted as Chairman of the School Board there for nine years. His closing years were, it is sad to remember, darkened by the condition of health to which we have referred and also by the death of a much loved son, who passed for the Civil Service of this country, and came out to India, only to die after a short five years of brilliant promise and performance. The blow was a cruel one, but those who knew the mingled strength and sweetness of Mr. Boyd's character will not need to be told of the spirit of manly resignation in which he faced it. A short trip to Madeira in the spring of this year was thought to have done Mr. Boyd good. But the improvement was not permanent. He passed his last days with another son now Free Church Minister at Dalry, near Glasgow, attended by whom, and by a loving wife, he passed quietly away on the 3rd of this month. He will be remembered in Bombay by many whom he helped, and by many who loved him. In their name we would fain offer to his bereaved family this heartfelt tribute of affection and regret.

Lecture on Citizenship.

On 16th January, at the Sassoon Mechanics' Institute, before a well-attended meeting, the Rev. R. M. Gray delivered a very interesting lecture on citizenship, its duties, responsibilities, &c. Surgeon-Colonel Waters, President of the Institute, was in the chair, and among others present were the Rev. Dr. Mackichan, Dr. MacDonald, Dr. Pearse, Messrs. J. Douglas, J. Macfarlane, J. P. Watson, L. J. Robertson, W. M. Bell, and others.

The lecturer said that his purpose was to remind them of the facts and principles which are involved in all civic or corporate life, and to suggest that what was most of all required for the material and moral progress of a city like Bombay was a larger recognition of civic duty, and a fuller development of the civic conscience. They belonged to an organised community in relation to the corporate life, of which each one must, of necessity, order his affairs, and it was involved in the very idea of civilised life that where privileges are enjoyed, duties should also be acknowledged. As members of one body they were all responsible for the public good and for the uncorrupt conduct of public affairs. The corporate life of a community could be healthy only when the members of it took an intelligent interest in the whole, when the best brains and the soundest hearts were devoted to the public service, and when a strong widely spread sentiment existed in favour of enlightened and righteous Government. It was probable that the duties of citizenship were more adequately recognised in some ancient cities than they had been since; but the problems before a Greek statesman were smaller. Athens, in form a democracy, was really a slave-owning aristocracy. Even Plato's ideal was encumbered, as Aristotle pointed out, with citizens who were no citizens. The modern idea was the good of all, and the dimensions and complexity of it made it difficult to grasp. It was easy for the individual to ignore his social obligations. The first thing was to think about it, to recognise the fact of the solidarity of their interests as citizens, and of their dependence upon each other for many of the essentials of good living, a fact which the plague had illustrated. And next that fact must be recognised also as a regulative principle of life. They must consistently try to understand their lives in the light of the common good. The form which public duty should take would depend upon circumstances; but all should take a deeper interest in civic affairs. It should be easier to find the best men willing to undertake public offices, and the body of the citizens should realise that the government of the city was in their hands. Whatever they determined should be done would eventually be done. It should be recognised also that to use public office to advance private and not public interest was unworthy of a civilised man. But they must not think that their duties as citizens were only those which dealt with public matters. Other actions affected the community, and therefore had a social significance. They had to realise that the way they spent their lives would affect the happiness and fortunes of other people. They ought to think out their lives in view of the common good, and consider how what they did would ultimately affect the community. Employers of labour did an immense social service by cultivating decently human relations with their men. Parents had a noble civic duty to perform. Again, when anyone spent money, he was affecting other people's lives. As buyers they were all employers of labour. If they spent their money on things that were ugly and worthless they were compelling somebody to make them, and if they would have impossibly cheap things, they were condemning somebody to work without proper pay. This might be applied to the case of Indian home industries, beaten metal-work, wood-carving, &c. The responsibility lay partly with the purchaser. If they insisted upon having good work, good work would be produced. These were but a few illustrations of the principle that the ordinary relationships of life gave scope for what was essentially public service. This was the normal and natural means for keeping society pure, and raising the level of their civic life. In conclusion, the lecturer said that as citizens they met on an equal footing, that whatever their nationality and creed, their interests were identical, and that they ought to work together, shoulder to shoulder, for the common good.

Dnyan Prasarak Mandli.

JUBILEE CONVERSAZIONE.

A conversazione under the patronage of H. E. the Governor was held on Friday, 23rd December, and three following days at the Elphinstone High School in connection with the celebration of the Jubilee of the *Dnyan Prasarak Mandli*, Society for the dissemination of knowledge, established in Bombay in the year 1848. The *Mandli* was an offspring of the Students' Literary and Scientific Society established in this city in June, 1848, under the auspices of the late Professors Patton and Reid, who took a deep and abiding interest in the students entrusted to their care, and Mr. Dadabhai Naorojee, who was also a professor of the Elphinstone College at that time. The *Dnyan Prasarak Mandli* was established in September of the same year under the auspices of Mr. Dadabhoy Naorojee, Mr. Dossabhoy Framjee, C. S. I., and the late Messrs. A. F. Moos, Bomanjee P. Master, and Cowasjee Shapoorjee Mehta, the late Mr. C. N. Cama and his late brother Mr. Dhunjeebhoy providing for a time funds for the support of the institution. The society started a journal, and caused lectures to be given by members on social and scientific matters, and did everything it could for the diffusion of knowledge among the middle and poorer classes of the community. After a decade or so the society lapsed into a moribund condition, when again in the year 1870 it was revived under the auspices of the late Mr. Sorabjee Shapoorjee Bengallee, C.I.E., the late Dr. C. F. Khory, Mr. K. R. Cama, Sir M. M. Bhownuggree, Mr. D. R. Chichgar, Mr. Bomanjee B. Patel, Mr. Nusserwanjee H. Patel, and others, who placed it on a firm footing. The credit of organsing the conversazione in connection with the jubilee of the institution belongs to Dr. H. K. Tavaria, B. Sc., L. M. & S., A.I.E.E., one of the Professors of the Technical Institute of Bombay, who arranged for a similar conversazione in the year 1895. Dr. Tavaria's experience of 1895 stood him in good stead at the present time, since yesterday's conversazione in all its departments—scientific, industrial, and educational—was a great improvement on its predecessor. The special committee consisting of Messrs. K. R. Cama, E. D. Talati, D. R. Chichgar, and N. H. Patel, left not a stone unturned to make the occasion a success. The spacious hall and the several rooms in which the scientific, industrial, and educational apparatus were exhibited and experimented upon were illuminated with electric lights, which were lent by Mr. Gordhandas Goculdas Tejpal, and there was a wealth of floral decorations and bunting in and about the building. The principals of the Grant Medical College and the Victoria Jubilee Technical Institute placed some of their scientific apparatus at the disposal of Dr. Tavaria, and the Director of Public Instruction made a great many of the educational exhibits from the Educational Museum available for the occasion.

Long before the appointed hour a large number of natives assembled in the main hall, where the up-to-date-Kindergarten apparatus and exhibits belonging to the Parsee Girls' Schools Association were laid out on tables arranged in the form of a square in the middle of the room. The proceedings were opened precisely at 5 p.m. by a choir of some fifty girls of the association singing a Gujerati song to the accompaniment of a pianoforte, the burthen of the song being that if India was to be regenerated, her sons and daughters should receive and develop scientific and technical education. The next song related to the Jubilee of the Society, in which the name of Mr. Dadadhoy Naoroji, one of its founders, was prominently mentioned.

His Excellency Lord Sandhurst, attended by Captain Greig, arrived at the conversazione at 6-30 p.m., and was welcomed by Dr. H. K. Tavaria, Mr. D. R. Chichgar, Mr. K. R. Cama, Mr. N. H. Patel, Mr. Jamsetjee Cursetjee Cama, Mr. K. N. Kabrajee, and others. On his arrival in the main hall, the girls of the Parsee Girls' Association Schools welcomed him by singing an appropriate song in chorus, beating time with small sticks tipped with bannerets. His Excellency, escorted by the special committee of the conversazione, went over the premises, viewing the exhibits displayed in the different departments of the exhibition, and expressed himself highly satisfied with all that he saw. About 7-15 p.m. his Excellency left the school amidst the cheers of the assembly. Several Europeans also attended the conversazione, among their number being Sir George Cotton, Mr. Justice Candy, Principal Hathornthwaite, Mr. Prior, Principal of the Elphinstone High School, and others. The Hon. Mr. Justice Ranade, C.I.E., who was also present, was then requested by Mr. K. R. Cama, who gave a brief history of the Society, to make the presents that were to be distributed by the Society.

The Hon. Mr. Justice Ranade, C.I.E., in addressing the assembly, said that he had been sufficiently long in Bombay to be acquainted with all the facts enumerated by Mr. Cama in his speech. The occasion brought back to his mind the day when the two societies, the Gujrati and the Marathi, were working together with a zeal and energy all their own, and made very useful institutions in those days. He remembered having himself taken part in the Marathi branch some forty years ago, since which time it had apparently gone to rest, but the members of the Gujrati branch had the credit of having kept up in full work the institution which was the first of its kind started in this Presidency by those who had received the benefit of English instruction. Fifty years was a long time, and the Gujrati branch had done well to celebrate its fifty years' commemoration in a fitting manner by holding a most interesting exhibition. They were at present living in times when their enthusiasm in respect of research and discoveries required to be stimulated to its highest point. They had in their midst, and on the platform, Mr. J. N. Tata, who had set his heart upon making high industrial education a reality in place of the dream that they all hitherto cherished, and it was, therefore, quite fitting that the society should have organised the conversazione, which was a fitting prelude to what they might expect the city to attain in the years to come. What with their scientific courses by the best teachers in Europe, and with their most enthusiastic and earnest students sitting at their feet and learning to be practical scientists, they might hope to see Bombay not only an interesting and a manufacturing centre, but also a scientific emporium. In bringing the proceedings to a close he wished every success to the gathering, and earnestly hoped that another Jubilee fifty years hence might be celebrated under greater and better auspices. (Loud cheers.)

Mr. Ranade then presented to Dr. H. K. Tavaria a gold coin and to Mr. N. H. Patel, the honorary secretary of the society, an ornamental oak paper box, both of which bore suitable inscriptions, to the former for ably organising the conversazione and to the latter for his valuable services as honorary secretary during the last fifteen years. Mr. Ranade also presented to Mr. R. F. Sethna the Ardesir Dustoor Camdin Prize of Rs. 400, which was awarded to him for a Gujarati Cyclopædia, and also a prize of Rs. 150 to Mr. Dady Eduljee Taraporevalla on the same subject from the same gentleman. He also presented to Mr. R. F. Sethna a purse of Rs. 400, from Mr. N. N. Wadia, C. I. E., as a contribution towards the cost of the publication of the Cyclopædia, which is to be dedicated to Mr. Wadia. Mr. K. R. Cama read a letter received from Mr. Dadabhai Naorojee, to the address of the Honorary Secretary of the Society, expressing his gratification at the celebration of the Society's Jubilee, and congratulating it on the event as well as on the success of the last conversazione held in 1895. Mr. Justice Ranade soon afterwards left the conversazione, which, however, was not closed until a late hour.

The assembly then dispersed to see the various exhibits placed in different rooms, of which the following is a brief description :—

SCIENCE SECTION.

The most interesting item in the science section, which attracted a very large number of spectators, was Rontgen's X-rays exhibited by Dr. B. E. Ghaswalla, Assistant Chemical Analyser to Government, who took photographs of visitors, and promised to hand over the negatives to the sitters after development on the following day. Professor Gujjar's exhibit was a large one, consisting of illustrations of the latest dyeing and printing and diazotising and developing processes. The method of preparing tallow substitutes was illustrated by experiments, and several forms of boiler compositions were prepared on the spot, the Professor pointing out the unnecessary waste and expenditure incurred by millowners on preparations, which could be manufactured much more easily and at a cheaper rate in Bombay. Gas bleaching and the removing of stains, the purification of water for boiler purposes, the latest disinfectants, and the method of capillary analysis, formed other exhibits in his section.

Recent science was represented by Dr. H. K. Tavaria's experiments on "vortex rings" in air and water to illustrate their bearing on the nature of ether waves and Hertzian phenomena. Messrs. Darukhanawalla and Dalvi exhibited "Vortex rings" in milk and ink, and the rings were beautifully illustrated by acetylene lamps.

MEDICAL SECTION.

In this section Doctors G. Galeotti and G. Polverin demonstrated the plague germs and illustrated cultures from them under a microscope with the help of an acetylene gas light, while Dr. R. Row presented the first part of his study as Grocer's Research scholar on typhoid bacilli. Dr. J. A. DaGama exhibited ophthalmic appliances, which have been specially ordered out by him from Europe for the purpose of illustrating the Lord Reay lectures at the Petit Laboratory of the Grant Medical College.

Uninvestigated Indian drugs were exhibited and explained by the Hon. Dr. Bhalchundra; Dr. Dhargalkar exhibiting some dry specimens of the flora of Mahableshwar, and Doctors Dadachanjee and Bottlewalla illustrated the use and abuse of Indian bazaar drugs. Doctors Dadisett and Sukhia exhibited some recent nose, throat, and ear appliances, and performed experiments with Moore's air medicator. Doctors Kalapesi and Vakil demonstrated plague bacilli with the help of magic lantern, while popular subjects under a microscope were taken charge of by Dr. B. S. Shroff and others.

INDUSTRIAL SECTION.

In the Industrial Section Mr. H. Monie, Principal of the Technical Institute, assisted by Mr. Greengrass, exhibited the large collection of aluminium ware. A large number of useful articles of cast as well as sheet aluminium had been prepared in the workshops of the Sir Dinshaw Petit Enamel School for the occasion. Demonstrations were given of the action of the different food stuffs, acids, &c. had on the metal. The defects of aluminium ware were illustrated side by side with the heat resisting and other useful properties of the metal. Mr. Jost exhibited some of his inventions, and exhibited finished brass work equal in design and finish to European manufactures. Fancy samples of various kinds of leathers with remarks on the methods employed and illustrations of their superior strength and durability were given by Mr. E. D. Talati, Principal of the Ahmedabad High School, while his son displayed the various processes employed in the manufacture by means of samples arranged in order on wooden boards, from the crude skin to the finished leather. Dr. Tavaria exhibited a calorimeter, which showed the relative heating properties of English, Indian, and Japanese coals. The apparatus tested coal with the minimum possible expenditure and without its being actually burnt in boilers.

Mr. John Wallace performed operations with a lathe and drilling machine constructed entirely of timber, which worked most successfully. Mr. Cowasjee K. Mehta exhibited a ginning machine patented by him, which was worked by a steam-engine.

EDUCATIONAL SECTION.

In the large hall were exhibited by Mr. D. R. Chichgar, Miss S. B. Mehta, and Mrs. G. D. Ranina, a large quantity of Kindergarten furniture used by the girls of the Parsee Girls Schools' Association. There was also a large number of designs made in clay showing the irrigation canals and the railways of the whole of India and the tramway lines in Bombay.

The Rev. J. Goldsmith Principal of the Deaf Mutef Institution, illustrated the methods of educating deas mutes, and practically showed the results of their education in the shape of graduates from the institution holding diplomas from the School of Art and some of the workshops in Bombay.

The Proposed Victoria Health Institute for India.

A MEMORIAL TO THE QUEEN.

MR. JUSTICE M. G. RANADE, C. I. E., the Chairman, and Members of the Committee, appointed at a public meeting of the inhabitants of Bombay, held on 9th October last, have submitted a humble memorial for her Majesty's gracious consideration in accordance with a resolution in that behalf unanimously passed at the said meeting, in the course of which they state:—"We have learnt with deep concern that the Maharajah of Dholepore has, at the instance of certain medical and military officers, set on foot a project for commemorating your Majesty's Diamond Jubilee by founding a Health Institute bearing your Majesty's revered name, on the model of the Pasteur Institute in Paris, for research by means of vivisectional experiments. We have further learnt with painful regret that the native Chiefs and Princes have been called upon by the Maharajah to contribute to the funds of the Institute in question, upon the ground that the Government of India 'have received with warm satisfaction the assurance that the Princes and Chiefs of this country welcome the present opportunity of testifying their love and reverence for her Majesty the Queen-Empress of India, and have also fully endorsed the opinion expressed by his Highness the Maharajah of Dholepore, on behalf of the Ruling Princes and Chiefs, that no presentation to herself, however splendid, would be so grateful to her Majesty as the inauguration of the scheme his Highness foreshadowed in the course of an interview with his Excellency the Viceroy.' Your Majesty has, throughout a long and illustrious career, exemplified in your Majesty's person the highest and tenderest attributes of noble womanhood. The people of this country have noted with special satisfaction that the Queen-Empress of India has, even according to their moral and religious ideals, typified in her life the principles of consistent humanity and exemplary self-denial, and all those higher virtues and finer qualities that should adorn a sovereign lady. They are, therefore, loath to believe that a memorial of the Diamond Jubilee, in the shape of a Health Institute for experiments involving prolonged suffering and torture of innocent animals, could be specially acceptable to one who has ever distinguished herself by her kindly sympathy with the sorrowing and the distressed, and whose loving words have afforded consolation to thousands of afflicted homes not only in this country but also in other lands. Your Majesty's Indian subjects have been much gratified to learn that your Majesty has assured the London Anti-Vivisection Society of your "hearty sympathy with its efforts to awaken the conscience of mankind to the iniquity of torturing animals for any purpose whatever, to draw public attention to the impossibility of any adequate protection from torture being afforded to animals under the present law, and so to lead the British public to call upon Parliament totally to suppress the practice of vivisection." Your Majesty's heart-felt expression of sympathy with this humanitarian cause cannot but commend itself to the tender instincts of Indian womanhood. There are no women in any part of the civilized world more gentle, kind-hearted, and self-sacrificing than Indian women, and we feel assured that your Majesty will not allow your name to be associated with an Institute, the methods of research in which are entirely repugnant to their moral or religious feelings. In England, members of the Royal family and representatives of your Majesty's Government have generally abstained, with commendable foresight and wisdom, from taking sides in scientific controversies likely to affect the susceptibilities of even a section of the people; and only three or four years ago his Royal Highness the Prince of Wales disclaimed all connection with the Chelsea Institute. It was in the same noble spirit that your Majesty condescended, in the ever memorable Proclamation of 1857, to respect the religious beliefs and practices of the Indian people by solemnly enjoining non-interference with them on the part of British administrators. In that great document your Majesty was pleased to observe that "Firmly relying ourselves on the truth of Christianity, and acknowledging with gratitude the solace of religion, we disclaim alike the right and desire to impose our convictions on any of our subjects–and we do strictly charge and enjoin all those who may be in authority under us that they abstain from all interference with the religious belief or worship of any of our subjects, on pain of our highest displeasure. We will that generally, in framing and administering the law, due regard be paid to the ancient rites, usages and customs of India." It is in the same spirit, which inspired these noble promises, that eminent British statesmen have strengthened their binding force by their own declarations on the subject. Your Majesty has been recently pleased to confer the Viceroyalty of India on Lord Curzon, and his Lordship has already announced his intention in a public and emphatic manner to act up to the spirit of the Proclamation and to administer the affairs of this country, as your Majesty's representative, with due deference to the wishes, feelings, and even the scruples of the subject population. This announcement has been received throughout the country with great satisfaction, and it would be a source of grievous disappointment and dissatisfaction if a torture chamber were established among Indians in the name of science, when many of them are strongly opposed to the introduction of vivisectional practices in a land which is so well known from ancient times for the sentiments of kindliness and even reverence that are entertained towards the animal creation by millions of its inhabitants. Your Majesty's reign is memorable in the history of human progress. It has noticed the triumph of right over wrong, of love and humanity over inhumanity and oppression, of righteousness over selfish despotism, and of conscience over brute force and heartless tyranny. It does not, therefore, harmonize with the sentiments of your Majesty's subjects about ethical fitness or divine love and justice, or the moral grandeur of your Majesty's life, that the celebration of the Jubilee should be in any way associated with the torments and sufferings of God's innocent creatures who cannot plead their cause with their own voice. We venture to submit that man has no right to advance knowledge or science by inflicting miseries on sentient creatures. Your Majesty fully, no doubt, realizes that "His mercies were over all His works." Millions of people in India have been taught, by their religions also from very ancient times, to believe that "regard for the sanctity of life is the highest religion. It is, again, the highest self-control. It is the highest kind of charity, and it is the highest penance." It is true, deplorable lapses often occur from such ideals owing to ignorance and poverty. But we feel that the sentiments enshrined in these injunctions will commend themselves to your Majesty, as they do to many millions of Indian mothers, wives, and sisters. We, therefore, humbly implore your Majesty to disallow the establishment of any institution, as a memorial of the Diamond Jubilee, bearing your honoured and beloved name, and which is likely to be used as a torture chamber of science even though it were intended for the advancement of research and the supposed benefit of the inhabitants of this country."

In fairness to those who with ourselves believe that a Health Institute on the Model of the Pasteur Institute in Paris is absolutely necessary in the interests of scientific research, we give here the following speech by Lord Lister, one of the very foremost scientists now living, in which he most emphatically states that absolutely no cruelty is exercised upon the animals operated on seeing that they are under an anæsthetic, and wounds are painless since there is no inflammation owing to antiseptic treatment.

An important addition to the medical faculty of Liverpool University College was formally inaugurated on Saturday, 8th October, when the Thompson-Yates Laboratories of Physiology and Pathology were opened. These laboratories are the gift of the Revd. S. A. Thompson-Yates, and are estimated to have cost, with their equipment £ 28,000.

Earl Spencer, Chancellor of the University, presided, and in opening the proceedings said:—'You are most of you aware what munificence has been shown by citizens of this great city towards the University College. Mr. Holt and the late Earl of Derby endowed chairs of learning for this University, and now another Liverpool citizen has munificently added a further sign of generosity by enabling you to establish in your College laboratories for the professors to carry out their work efficiently. You are met therefore under the leadership of one of the most distinguished men of science, Lord Lister, who has had a most remarkable career. He has introduced scientific reforms in surgery, his own branch of the profession. His name is well known all over the world. By his skilful research, his patient following out of principles, he has not only made a revolution in surgery, but he has also been a most distinguished surgeon. His researches and his discoveries have opened wide fields to surgery in every part of the globe. Without his discoveries, it could not have advanced as it now advances, and in this way he has been a benefactor to suffering humanity in all the world.

Lord Lister said:—"When I was honoured by the authorities of the Liverpool College with the request that I would open the Thompson-Yates laboratories, I little imagined that I was asked to take part in so imposing a ceremonial as the present. That it should have assumed such a character, that it should have attracted so large and brilliant a company, including not only many men from various and even distant parts of the country, distinguished in medicine and other branches of science, but also noble-men, Church dignitaries, and persons eminent in literature and in politics, seems to me a matter of great importance, full of good augury for the future of the scientific practice of the healing art—in other words, treatment based upon real knowledge, as contrasted with the blind gropings of empiricism. We seem to have before us to-day clear evidence that the more cultured sections of the British public are becoming alive to the necessity of providing adequate means for the practical study of the sciences, which are the very essence of the knowledge that confers the power to recognize and treat disease. It might seem the veriest common-sense, that, the more practically familiar a man is with the structure and working of that marvellously complicated mechanism, the human body, the better fitted will he be to deal with its disorders. Yet, obvious as such a consideration may seem, it is only in comparatively recent periods that its truth has been generally recognized. I am old enough to remember the years before the passing of the Anatomy Act, and I recollect being told, as a child, of the fiendish deeds of Burke and Hare—horrors which it would appear were needed to arouse a prejudiced and an apathetic public to the imperious necessity of making it legally permissible for the intending surgeon to become acquainted in the only possible way, by dissection, with the sacred structures which he would be called upon to invade with his knife in the living body. A dissecting-room, well provided with the needful material for study, has since been found necessary for the equipment of every medical school, and a thorough course of dissection is demanded of every medical student.

"Meanwhile, another kind of anatomy than that which the scalpel displays has come into being—the anatomy which the microscope has revealed, and is constantly further revealing. This microscopic anatomy, both of healthy and diseased structures, has assumed the greatest importance, and, like naked-eye anatomy, it requires special provision for its successful study. The materials to be studied cannot well be obtained by the student in his lodgings, and the processes employed for the elucidation of their minute structure are often of a complicated character which he cannot learn unaided, and which require unique costly apparatus which he cannot provide. The requisite facilities for this work will be amply supplied by the laboratories, which will be opened to-day. The necessity for special pathological institutions has long been recognized on the Continent, and nowhere has an establishment been conducted with more signal success than in the Pathologisches Institut of Berlin, presided over for so many years by the illustrious man whom Liverpool is, I am sure, as glad to welcome with reverence as London has been. Many present to-day have sat at the feet of Professor Verchow, but we may fairly anticipate that Liverpool students, at least, will in the future be able to dispense with these pilgrimages to Germany. While the minute anatomy of normal and morbid structures will be thus effectively taught in the new laboratories, much may also be done in them to demonstrate and explain the actions of the living organism. I well remember the effect produced on me, as a member of Dr. Sharpy's Class in London, by the repetition before us of Bernard's great experiment on the local circulation, and the converse experiment of Waller. The sympathetic nerves in the neck of an animal being divided, the ear of that side instantly became red and hot and the blood-vessels tinged, while on the application of galvanism to the severed nerve, the opposite effect is immediately followed, the ear becoming white and cool and the vessels less conspicuous than those of the other side.

"Thus was impressed on us, as mere oral teaching could hardly have done, the immensely important fact that the contractions of the arteries are as much under the control of the nervous system as are those of the muscles of a limb. I need, perhaps, hardly add, that the animal being completely under an anæsthetic during such a demonstration, no pain whatever was inflicted.

"In the study of the new science of bacteriology, the pathological laboratory will render most important service. The student will see with his own eyes, by the aid of the microscope, the minute living beings which we now know to constitute the essential cause of many infectious diseases, and he will be put through a course of the cultivation of these microbes, which, while it will impress upon him the reality of their existence and the characters by which the various species may be recognized, will be invaluable as an exercise of the habits of accurate observation and manipulative skill. The new laboratories will also serve as a centre to which practitioners of a wide surrounding district may refer for the authoritative determination of the nature of doubtful specimens of diseased material, which they have neither the needful equipment, time, nor special knowledge to decide for themselves. As important as the services which the laboratories will render to the education of Medical practitioners will be the opportunities which they will afford for research. Every step in advance in scientific knowledge only opens up wider fields for exploring the infinite resources of nature, and these laboratories will afford ample means for the further prosecution of such beneficent enquiries. Some perhaps may be disposed to object to such researches, because they involve the sacrifice of animal-life. This, however, I need hardly remark, is as nothing compared to what occurs for the supply of food to man.

"Of animal suffering I need hardly speak, because, in truth, the actual pain involved in these investigations is commonly of the most trifling description. Anæsthesia has come to the aid of experiment on animals just as the electric telegraphs did for railways. I am bound to add that antiseptic treatment of the wounds by preventing inflammation renders healing painless, while it leaves the parts uncomplicated by inflammatory changes and allows the results of operative procedure to be rightly estimated.

"Operations thus conducted have, by indicating the process and function of different parts of the organ and thus guiding the surgeon in his operations, already led to the saving of many human lives. While I deeply respect the humane feelings of those who object to this class of enquiry, I assure them that if they knew the truth, they would commend, and not condemn them.

"The laboratories, though they will be formally opened to-day, have for some time been in practical operation, with the result that the Biological and Pathological School of Liverpool is ranking very high among similar institutions in other parts of the world. As an Institution, I may mention the fact that the Royal Society, acting with the approval of the Secretary of State for the Colonies, has lately selected a pupil of this school as one of two men specially qualified to undertake investigations in Africa on the deadly malaria of those regions. I cannot conclude these remarks without congratulating the Liverpool College on the weighty addition which these laboratories afford to their powers for usefulness. I believe they may be pronounced both in structure and equipment equal to any in existence. I must also congratulate you on having so nobly generous a benefactor as Mr. Thompson-Yates. I trust he will be rewarded by the deep satisfaction of knowing that he is doing incalculable good to mankind. If I may make one more observation, it is that while these institutions have been so nobly constructed and equipped, there is yet much to be desired as regards the means for maintaining them in efficiency, and if any wealthy inhabitant of Liverpool is anxious to bestow his wealth in some manner calculated to do good to his fellow-men, he could hardly do better than by devoting a portion of his resources to the permanent maintenance of these fine institutions."

The Israelite School.

OPENING BY LORD SANDHURST.

AN important development of the educational facilities available for the Beni-Israel community in Bombay was marked yesterday by the opening of the fine school premises which have been acquired at Mazagon. The history of the efforts which have been made by the Beni-Israelites to provide the means of giving a sound education to the poorer members of the community is that of a gallant struggle against difficulties, the principal of which was the lack of funds. The present school dates back to the years following the terrible famine of 1874-75, and additions were made from time to time to the modest establishment then inaugurated. The average attendance steadily continued to improve, and in its quiet way the school steadily waxed and developed. A great need which had to be met, however, was the want of a permanent building, specially set apart for the purposes of the institution. The Anglo-Jewish Association gave the sum of Rs. 17,985 to form the nucleus of a building fund. Government were unable to give any assistance, so the Anglo-Jewish Association came forward with another donation of a like amount, and money was contributed freely by the London Jewish community and many philanthropic supporters in Bombay. The school authorities then made negotiations with Mr. Cama and purchased the property called Erdington House, near the Mazagon Railway Station. The area of the site, including the building, is 12,704 square yards. For the present the three branches of the school may be, with some difficulty, accommodated in the same building, but it is expected that it will soon be necessary to erect a separate structure in the ground for the girls' school, and detached quarters for the Principal of the Institution. The opening ceremony was performed by His Excellency Lord Sandhurst, who presided over a large gathering of those interested in the welfare of the school, and who had assembled in the principal room of the large and airy bungalow. In opening the proceedings,

His Excellency said :—As usual in connection with any new undertaking, the easiest part of it falls to myself. in this case it is not the laying of a foundation-stone, and we have not to wait a year or two before the building is completed, for through the munificence of many friends, I am able this afternoon to declare open and ready fcr use the new school for the Beni-Israelite population. To those who have been most energetic in collecting subscriptions I tender my most sincere congratulations. Before I came to this country I was a great deal mixed up with some of the largest charities in London, and nobody knows better than myself how disagreeable is the duty of asking for money, be the object ever so praiseworthy. But at the same time my experience has led me to this conclusion, that if you go to the public with a good object, and the public have faith in you, you will not return disappointed. Now I doubt if there has been a better or a more deserving object than the education of this particular community, and I am glad to observe in the subscription list the names of many who do not belong to the Jewish community. (Cheers.) I myself have had frequent occasions to appeal to the richer members of the Jewish community in London to aid our great charities, and I have never appealed to them in vain. (Cheers.) I remarked the name of a lady read out amongst the list of subscribers with whose husband I was acquainted—the Baroness Hirsch. He as a Jew largely supported every conceivable charity for the benefit of his own race, and I know of no one who was more generous in supporting the great charities of London. Therefore I am glad to see that to some degree at any rate others have come forward to the assistance of the Jewish community in Bombay. (Cheers.) I hope that before I leave this building I shall have an opportunity of inspecting the various parts of it. I understand that it is proposed to erect a girls' school to adjoin the boys' school —if I am right in supposing that this is to be a boys' school—and I have a trifling word of advice to administer to the future generations of boys who may receive their educatian in this building. In the report that I have read I noticed a remark by Mr. Kirkham, that in intelligence shown by the children the girls seemed to out-do the boys. Well, I am the first to appreciate good manners on the part of young and old towards women, but I would ask the boys of this school whether in giving place to little girls they are not carrying their politeness too far. Of the intelligence of the girls I have no doubt, but the boys may have physical exercises and other pastimes which render their books less attractive to them. I was glad to see from these reports that physical exercises have not been left out of your calculations. Since I have been in Bombay I have so many times referred to the extraordinary advantages of physical exercise, in moderation, that I need not further remark npon them, but when one is inaugurating a new institution it is perhaps as well to lay stress upon the usefulness of physical exercise in training the body, and also in tempering and invigorating the mind. I wish this institution the greatest possible success. It has been a great pleasure to me to come amongst you to-day, and I now declare this institution open. (Cheers.)

Principal J. T. Hathornthwaite, in proposing a vote of thanks to H. E. the Governor, said that it was most kind of His Excellency to attend and preside at the inauguration ceremony of the Israelite school that afternoon. They all knew how numerous and pressing were the calls upon the time and energies of the head of the Bombay Government, so that His Lordship had done them a great and real kindness which had cost him something; and he had thus shown in a most effective manner the lively and sympathetic interest he took in the struggling Beni-Israel community and its educational enterprises, and in this most deserving school, which from that day was to have for itself a local, and he hoped a permanent, habitation in Mazagon. But before reaching the stage of success which that afternoon's proceedings and the present large meeting indicated, the poor Jewish community had had to contend with immense discouragements and difficulties, which had only been overcome by the munificent assistance of the Anglo-Jewish Association of London and a few leading philanthropic Jews. It was by help of that kind that the land and buildings at Mazagon had at last been acquired, to be used hereafter for educational purposes by the Beni-Israel people. Foremost among the friends of the school was its energetic president and secretary, Mr. Haeem Samuel, under whose guiding hand it had been brought into existence. With untiring perseverance Mr. Samuel had cradled it in its infancy and cherished it in its chidhood, and, he trusted, was destined to see it grow into a strong and healthy maturity. (Cheers.) As chairman of the Joint Schools Committee of this city he had been acquainted with the Israelite school for some three or four years, and the Committee subsidised it with a grant-in-aid from their treasury; and in the case of so meritorious an institution his only regret was that they could not make their grant much larger and bestow their funds with a more liberal hand, but of course they were tied down by rules in matters of this kind. It was the only special school for the Beni-Israel race in Bombay, and he gladly bore testimony to the excellent and noble work which it had done in the past and was doing now, and to the great value of educational efforts such as it was putting forth, which had the effect of raising the moral, intellectual and social life of a whole community, of a community which only a little whilea go was regarded as most backward and benighted, and even sunk in degradation, but which now under the influence of education was slowly but surely advancing in intelligence and, therefore, in material prosperity side dy side with other progressive races. (Cheers.) Formerly at odd times isolated members of the Beni-Israel community joined the college over which he had the honour to preside, but now this was invariably the case; and he welcomed their presence in the college classes, because his experience led him to expect bright and industrious pupils, and because their aspiring to higher education was a good omen for the future of their race, and merited all possible encouragement. At the present time out of twelve Jews whose names were on the boards of his college he was glad to say that no fewer than six were Beni-Israel, and of these one was a young lady. (Cheers.) A very good Beni.Israel student that he had in the old Elphinstone College at Parel was now rendering Government efficient and loyal service as a Subordinate Judge, and one of the best students he had met with at its present college building in the Fort was a Beni-Israel boy, who, in addition to his intelligence in his studies, and especially in mathematics, and to his academic successes, excelled equally, as all good boys did, in athletic pursuits, and was a most valuable auxiliary to the College authorities in matters of sport and in the management of the gymkhana. A couple of years after this student graduated and left the College it was great pleasure to him to recognise in a smart soldierly young man who called to pay his respects his quondam pupil, now holding an appointment which promised him a life of usefulness and success. Illustrations like these were eloquent and spoke for themselves, and they indicated of what nature was the end and the reward of good work such as was being carried on in the Israelite school, and that the race was not backward through want of brains or intelligence, but only required encouragement and educational opportunities. He could assure His Excellency that by coming there that day he was giving his countenance and patronage to a very good cause and to a very worthy and deserving institution, and that the friends and supporters of the school greatly appreciated His Excellency's presence and the kindly and inspiriting words he had spoken.

He had no doubt that the resolution of thanks to the Governor which he now moved would meet with the enthusiastic response of all present, and would be passed with acclamation. (Loud cheers.)

Mr. S. M. Moses said; I have great pleasure in seconding the vote of thanks which Professor Hathornthwaite has so ably proposed; and in doing so I beg to state that H. E. the Governor has placed the Beni-Israel community under deep obligation by the kindly interest he has evinced in presiding to-day. The interest and sympathy of Lord Sandhurst in educational matters in this Presidency is too well known for me to dilate upon. He has now extended this sympathy to the Beni-Israels, for which they are extremely grateful to His Excellency. The school which has been so auspiciously inaugurated this day, I sincerely trust, may be the means of imparting religious and secular education to thousands of Beni-Israels for generations to come, and will theroby make useful citizens of a hard working and loyal community. (Cheers.) We regret very much the cause which prevented Mr. Haeem Samuel from taking part in this interesting ceremony, and we sincerely sympathise with him in his bereavement. He is the life and soul of this institution, and has worked hard to bring it to its present state of efficiency. He has made strenuous efforts for years past to collect subscriptions, and to-day his long-cherished desire has at last been accomplished. He has now secured for the school a fixed abode through the munificence of the Anglo-Jewish Association and other subscribers, whose names you have just heard. Mr. Samuel need now be under no apprehension of ejectments from greedy landlords. (Laughter.) I thank you, ladies and gentlemen, for your presence to-day in assisting at this interesting ceremony.

Lord Sandhurst, in reply, said:—I thank you very much for the acclamation with which you have passed Principal Hathornthwaite's proposal. I have been studying the list of donors that you heard read, and there is one family to whom the community owe a great deal for the munificence of their donations, and that is the family of Sassoon in Bombay. (Cheers.) As I look down the list I find that as regards individual donations their names stand for the largest amounts.

His Excellency inspected the premises before leaving.

Teaching of English Composition in its Earlier Stages.

I.—Introduction. (*a*)—This is a subject the importance of which need not be dwelt upon before an audience such as the present. Every teacher here this afternoon will probably be willing to acknowledge not only the desirability but the necessity of paying due attention to this branch of the school curriculum.

(*b*) I venture to say, however, that the subject does not receive that careful systematic attention which it deserves. It is not a separate code subject and is not treated in the same way, *i. e.*, with the same attempt at thoroughness as, say, Geography or History.

II.—Time.—(*a*) Nor can the time which is given to it in many schools be considered adequate. I should say (on this point as well as others, I should be glad to have the opinion of experienced teachers) that half anhour weekly is by no means too much to be given to *systematic* teaching of this subject. I use the term "systematic" advisedly, because it seems to me that it is the want of system which is at the root of a state of things which, I think we must all agree, is not so satisfactory with regard to this subject as it might and ought to be. We do not find that children learn Geography or History or Grammar by *instinct*, and yet we are apt, are we not—to treat English composition somewhat as though it should be known like an axiom of Euclid intuitively or although it should be allowed to remain by the roadside, so to speak, of education, to be picked up by girls and boys when and how they may? English composition, with efficient treatment, can be made a most valuable means of mental training and discipline for the young. If this statement has not been justified by our own experience, it behoves us to consider or reconsider our methods of treatment. Ask any experienced and successful teacher of English composition and I think they will, without exception, acknowledge that in the training of pupils it can be made an instrument of exceptional finish and admirable adaptability.

III.—Need of System.—Shall we agree for the sake of argument, that half anhour a week is the irreducible minimum necessary to be given for the efficient and successful treatment of this subject? Then the question arises, How can this half hour best be utilised. In the first place the teacher should have a clearly-defined aim for every year's work, for every term, for every lesson; and in the second place, he (or she) should lay down a definite systematic course of instruction in order that the end in view may be realised. Such a scheme will, of course, differ for each standard and will be adapted to the requirements of that standard.

IV.—Aim.—Before entering on the consideration of any scheme, whether in outline or detail, let us put before ourselves—

(*a*) the aim we have in view for each standard.
(*b*) the special faults we desire to prevent or check.
(*c*) the special features we desire to foster and encourage.

(*a*) With regard to the aim in view I should not go very far wrong, I think, if I expressed it thus:—We wish—

(i) to instil a knowledge of good English
(ii) that knowledge to be carried into practice,
(iii) to instil a love of good English,
(iv) to induce a love of good English and admiration for good and great authors in prose and verse.

(*b*) The faults we wish to check or prevent are amongst others :—

(i) poverty of vocabulary,
(ii) a loose rambling style,
(iii) faults of spelling, punctuation, grouping of words into (*a*) sentences (*b*) paragraphs, &c.

(*c*) Among the features we need to encourage are—

(i) facility of expression in speech and writing.
(ii) freedom from self-consciousness.
(iii) correctness of expression, &c.

V.—General Outline.—In the junior school, which alone we are at present considering, only the absolute essentials of good composition will be taught and emphasized, such as (1) clearness, (2) simplicity, (3) conciseness and (4) correctness. Beauty, elegance and other features of a good style must be left to the upper standards.

VI.—Detailed Outline.—In the following remarks I shall not go beyond Standard V in a school of nine standards, Standard V marking approximately the middle of the school. The sketch I shall make is intended to be provisional only ; I shall be truly glad to receive any suggestions. Perhaps some present are prepared with alternative schemes which have either been successfully carried out or are capable of practical application in schools. This paper will have served its purpose if it stimulates discussion on this important branch of education—I do not profess to bring before you anything new. What I say may, however, prove a starting point for the consideration of newer and improved schemes.

(*a*) *Infant School.*—In the Infant School—(1) The teacher tells a short story simply and carefully with not too much detail, introducing a few—very few—new words and duly explaining these to the class. (2) The story is repeated by the children, each child contributing at least one complete sentence. The shy, backward children must receive especial encouragement to do their part and overcome their awkwardness and nervousness. The children *must themselves make use of the new words introduced by the teacher.* This is an important point for in this way the children's vocabulary is increased and it is shown whether or no they have grasped the meaning of the new words. (3) Towards the close of the lesson one or more of the backward children may give the story as a whole or in part, the others correcting or supplementing as required.

(*b*) *Standard I.*—This standard is only one stage removed from the Infants and the same plan may be adopted, the stories being slightly longer and more detailed. The children's answers must always be given in complete sentences and the main points of the story must be thoroughly well grasped and carefully recapitulated.

(*c*) *Standard II.*—Stories need not be dropped altogether. They serve the purpose of breaking monotony and introducing variety, a matter of so much consequence with young children. A new feature will be a short letter written by the teacher on the board to which an answer is required by the children on slate or paper. The teacher should in this and all the standards be careful to introduce a few—even if very few—words correctly explained. The children should note these down preferably in small memorandum books reserved for the purpose. These books the teacher will correct, and, at stated intervals, will examine the children upon the words and their meanings.

(*d*) *Standard III.*—Letters and stories will not be dropped altogether, but will be treated somewhat differently. The letters will be more varied and the stories having been related or read by the teacher, the headings will be written on the board together with any new words to be used. All these the children will enter in their books and by their help will reproduce the story in writing, each part of the story under its proper heading.

(*e*) *Standard IV.*—Standard IV. work will be continuous with Standard III, but now very simple descriptions of, say, landscapes and scenery may be introduced. The teacher gets from the children first, such a description as they are able to give orally. The teacher corrects and supplements these efforts, writes the headings and new words on the board and the children reproduce.

(*f*) *Standard V.*—Would proceed to descriptions of pictures, buildings, &c., in a similar way.

It is very desirable that for a few minutes of each lesson the children should have, what I may call—

VII.—Composition Drill.—Thus :—

(i) Any mistakes in spelling, punctuation, &c., in the lower standards, write on the board correctly. Draw the children's attention to them. Make them (*a*) repeat, (*b*) write them correctly again and again.

(ii) Write on board any words in which the children are likely to make mistakes, *i.e.*, guard against mistakes as far as possible.

(iii) Insist on care with regard to minor though far from important points such as (*a*) margin on left-hand side, (*b*) proper writing of headings, (*c*) beginning of paragraphs, (*d*) division of words at the end of lines, (*e*) inverted commas,'(*f*) capitals, (*g*) apostrophes, (*h*) crossing of ts and dotting of is, (*i*) concords such as subject and pred., adj. and noun, (*j*) right use of personal prons., so that no confusion as to the person referred to is caused, (*k*) conjs. and props. The children must be taught to discriminate and in all this is valuable material for training and disciplining, the mental powers. Exercises should be given, the purpose of which is to correct some special fault and tendency. Such exercises and composition drill generally might occupy, as I said above, a few, say, 10 minutes of the ½ hr. at our disposal, There is one part which, perhaps I have not quite sufficiently emphasized above. In setting composition in all the Standards referred to, it will be necessary to give the children at least the *headings* or *chief points* of the Essay, &c. In the lowest Standards the whole substance needs to be given. In the Standards above the lowest the substance needs still to be given as a *model* and the *headings* of the compositions intended to follow on the same lines of the, *i.e.*, imitation composition perhaps they might be called if the name is not liable to be misunderstood.

VIII. Conclusion.—English composition in its earlier stages has a more or less close connection with grammar and grammar with composition, but the two subjects, though they dovetail, need not overlap or encroach on each other's proper territory. They can *assist* without interfering with each other. May the result of this meeting be (*a*) a quickened interest in this branch of study and (*b*)improved methods in dealing with it in our schools.

A. E. EDGE.

Bombay Lady Teachers.

AN ASSOCIATION SUGGESTED.

A VERY interesting meeting was held at Government House, on Friday, January 27th. Miss Manning having made some suggestions with a view to helping the poorer class of English-speaking female teachers in Bombay, her Excellency Lady Sandhurst invited all the representative lady teachers to meet her and the Ladies' Committee of the National Indian Association in order to put the matter before them and to invite discussion. This very practical move on the part of Lady Sandhurst was warmly responded to. There were present :--Mrs. Sassoon, Mrs. D. J. Parakh, Mrs. Ranade, Mrs. Mulji Barbhaya, Mrs. J. F. Petit, Miss Benson, Lady Jehangir, Mrs. Dimmock, Mrs. Childe, and Miss S. M. Cursetjee of the Ladies' Committee, N. I. A. Teachers present were:—Mrs. M. A. Tennant and Miss D. C. Nazir (Sir J. C. Readymoney School), Mrs. Trimbak Canaran (Superintendent, Lower Colaba School), Miss P. C. Nazir (The Merwanjee Seth School), Miss Hunt, M. A., (Alexandra N. G. E. Institution), Miss Saunders (Missionary Settlement for University Women), Miss Franklin (Fletcher School), Miss B. R. Parukh, B.A. (English School for Native Girls), Miss Parker, (Byculla Girls' School) Miss A.,M. Clark St. John's Orphanage, Umarkhadi) Miss Edge (Girgaum Girls' High School), Miss Sarabai Jhellabhai (Null Bazaar Girls' School), Miss Aimai Khursedjee Mehta (Bai Ruttonbai Dinshawjee Petit School), and Miss Aimai Hormusjee Printer (Goculdas Tejpal School).

Lady Sandhurst, President of the Ladies. Branch of the N. I. A., opened the proceedings by saying:—I think a few words are necessary to explain why I have asked you all to meet here. When Miss Manning was in Bombay last month she pointed out to the Committee of the Ladies' Branch of the N. I. A. that during her visits to the many schools in Bombay, she had been struck by the wide differences in the condition and surroundings of the various female teachers. This, she thought, was owing to a large extent to the very small pay of some of the teachers in the smaller schools; many of them able to understand and speak English, and all of them intelligent and anxious to improve if only the opportunity offered; and it occurred to her that they could do much for each other if they would form a guild and meet occasionally, especially if their more advanced and more fortunate sisters would come forward and join such a guild, and help them by associating with them and by showing a friendly sympathy in their work. Miss Manning's idea was that, as it would be impossible to ask for any subscription from teachers whose pay is barely sufficient for their daily wants, our Association might take the matter up, organize the guild, arrange for its meetings, provide the room, and bear such small expenses as might arise in connection with such gatherings. It is to discuss this matter that I have invited you here to-day. Miss Benson has, I know, a suggestion to make which might be more useful to you than the one I have just put before you.

Miss Benson said that the Ladies' Branch of the N.I.A. having decided to form a guild and Library with a view to assisting the lady teachers of Bombay, she proposed, with the sanction of her Excellency, that this could be best carried out through the agency of the excellent organization now existing in the Teachers' Association; and her suggestion was that they might offer the Teachers' Association certain funds to be applied for the benefit of lady-teachers only; and also ask them to keep the Library for the lady-members of the Teachers' Association. She wrote to Prof. Velinkar, Secretary to the Teachers' Association, some days ago, asking for some general information about lady-teachers, and his answer encouraged her to believe that her proposal would be well received by the Teachers' Association.

Lady Sandhurst then called on the lady-teachers present to give their views.

Miss Edge considered the idea of a Women's Association of Teachers a very valuable one on the part of the National Indian Association. If help was to be extended to those most in need of it, these women-teachers should be helped in every possible way. The suggestion was welcomed at the last Meeting of the Executive Committee of the Teachers' Association. If women-teachers were to have a club of their own, it should at least be affiliated with the existing Teachers' Association for men and women, " Union is strength " ; the men would help the women, and the women the men. The idea of a women teachers' guild or association was not altogether a new one. It occurred to Miss Kimmins, the Lady Principal of Girgaum School, and a teacher of many years' experience in India. Miss Edge added that she was more in favour at the time of an association for men and women on equal terms, and such an association had now been formed and was in existence, called "The Teachers' Association of Bombay," but there were many questions affecting only, or chiefly, girls' schools, and in relation to these it was very desirable that women should have a branch of their own. With regard to the proposed library exclusively for women-teachers, it did not at first sight commend itself to her, but further light on the subject might be forthcoming. Educational libraries and museums were very desirable if not absolutely necessary in themselves. A sub-committee of women-teachers might be appointed to deal especially with girls' schools.

Miss S. M. Cursetjee said she was not in favour of an exclusive Female Teachers' Guild. The number of female-teachers in Bombay was about 550, of whom hardly 100 would be up to the required mark. Besides, the formation of a Teachers' Guild is beyond the scope of the Ladies' Branch of the N. I. A., most of whose members were not in this profession, and whose funds too were too limited to bear the expense. She proposed that instead of the ephemeral task of forming an exclusive Female Teachers' Guild, the Ladies' Branch of the N. I. A. should strengthen Mr. Macdonald's Teachers' Association, and to the best of their means aid female-teachers to become members of it.

Lady Sandhurst remarked that as Miss Manning has been staying with Mrs. Dimmock, she would, perhaps, be the best person to explain further what was intended.

Mrs. Dimmock said she did not think Miss Cursetjee quite grasped Miss Manning's idea. It was not meant to include indiscriminately every single female-teacher in Bombay and to form them into a guild, whether they desired it or not. Her idea was that there were a number of intelligent English-speaking teachers in the various schools on very low pay, women who worked hard and desired to improve themselves, but had neither the means nor the opportunity of doing so. Not only had many of them no books or materials for study, but they had not even a quiet spot in their poor homes where they could study. They all knew of the earnestness with which Miss Manning interested herself in all matters connected with the improvement of women in India, and if she observed in her visits to the many schools in Bombay that there was a need for such a guild as they had been discussing, they might take it for granted that there was room for this work. The reason Miss Manning wished the N. I. A. to take up the mattter was because she realized that there must be no expense entailed on the teachers, and as the meetings proposed would be of the simplest, the drain on the funds would not be great. Ladies could always be found willing to lend a drawing-room and to help in various ways that lightened the expense. However, these were details to be arranged hereafter. It was their sole desire to be of use to the teachers. If their object was better obtained by merely assisting the funds of the Teachers' Association or in helping in any manner they might suggest, she was sure they would be very willing to do it in that way.

Lady Sandhurst said that they were not going to be selfish and keep the idea all to themselves. They were a friendly association, and their one wish is to be useful where they could, and as far as funds permitted.

Mrs. Dimmock gave particulars about the Library Miss Manning wished to start for the sole use of female-teachers in Bombay. Miss Manning was very anxious that they should form a library exclusively for the use of female-teachers. She felt sure there must be many who would welcome the free use of books, teachers who were too shy or perhaps had no opportunity of obtaining books from the general free libraries. Miss Manning said she would be glad to send out books for this purpose, and she felt sure some publishers she knew would gladly contribute books from time to time. She wished the Association to undertake the care and responsibility of such a library. Mrs. Dimmock thought they could do so in connection with whatever association undertook the scheme they had just been discussing.

Miss Hunt, of the Alexandra Institution, spoke on the question of the housing of the library. She said that the Honorary Secretary of the Teachers' Association had told her that if the proposed Female Teachers' Guild were united with the existing Teachers' Association, their combined funds, with such aid as friends would give to the Teachers' Association, would suffice to hire a room, which would be the beginning of a Teachers' Institute. This room would accommodate the library promised to the guild, and such books as might from time to time be presented to the Teachers' Association. It would also serve as a centre for social intercourse.

Lady Jehangir said she would like to repeat a suggestion she made at the last meeting of the Ladies' Committee, namely, that teachers should be invited once or twice a year to the social gatherings given by the Bombay Branch of the N. I. A. This proposal had been carried, and she hoped it would afford some pleasure to the teachers, some amusement being generally provided.

Miss Edge said the teachers would like to have a room or rooms of their own, something on the same lines as that they had at Cambridge, where they could meet, see friends, read, and have a cup of tea if they wished.

Miss Benson having prepared two resolutions on the proceedings, Lady Sandhurst put them to the vote :—

1. (*a*) "That this Meeting is of opinion that it is desirable to form a guild or club for women-teachers, that this should be done by the National Indian Association in connection with the Teachers' Association."

(*b*) Offering to form a library for the use of women only.

2. (*a*) "That this meeting is of opinion that it is desirable to form a guild or club for women teachers, and to assist in this object the National Indian Association might offer certain funds to the Teachers' Association."

(*b*) Offering also a library for the use of women only or requesting that a room be reserved on some nights for women only.

The first having been unanimously accepted, it was resolved that the Secretaries, Mrs. Childe and Miss S. M. Cursetjee, be requested "to send a letter embodying the result of this discussion to the Secretary of the Teachers' Association for comment and suggestion."

The Meeting then closed with a vote of thanks to her Excellency for her kindness in calling the Meeting. Her Excellency replied that it had been a very great pleasure to her to meet the ladies present, and she hoped something really useful might grow out of this small beginning.

Correspondence.

TO THE EDITOR OF THE "BOMBAY EDUCATIONAL RECORD."

SIR,—I beg to offer a few stray thoughts by way of contributing towards a full discussion of the question raised in my letter *re* the question paper in English set at our Matric. and U. S. F. exams. My contention is that by allowing the candidates to choose translation instead of paraphrase, their capacity of comprehending English literature is not at all tested and, at the same time, the best interests both of the candidates and of a sound or scholarly knowledge of English are greatly prejudiced.

The English question paper is drawn up in two sections. The second section, which appears to be drawn up with the object of testing the candidates' knowledge of English grammar and idioms and thus deals mostly with the technical part of the language, may be left out of consideration. The first section consists of two questions, one in paraphrase or translation from the candidate's vernacular into English and the other in writing a short essay on a given subject, and is meant to test, firstly, a candidate's ability to comprehend English literature and, secondly, his command ever English for the purpose of expressing his own or other peoples' thoughts clearly and correctly. Translation from the Vernacular into English tests, the latter which test, however, is secured in a far more satisfactory way by the essay. The only test for the former, that is, whether and how far a candidate comprehends English literature is secured by the first question, viz., paraphrase. When, however, that is replaced by an alternative translation from the candidate's mother tongue, there is nothing in the whole question paper to serve for the first test. Both the first question and the second become tests for one and the same thing, namely, the candidate's command over English. Where then is the test for the other and equally, if not more, important attainment which can only be secured by the question in paraphrase? Of course, the best way to test this in the case of those candidates whose mother-tongue is some language other than English would be to ask them to render an English passage, either prose or poetry, into their vernacular. But with Englishmen as examiners that is not practicable. Hence, the next best thing is to ask them to paraphrase. We are all aware that paraphrasing is called turning good English into bad. Notwithstanding, under the circumstances it is the only means of estimating how far a candidate is able to comprehend English literature. So much for the main evil of what I would for the sake of brevity call the 'alternative.'

But another evil—and which unfortunately affects the candidates' education as well as prospects—is that the translation test admits of being misapplied however indirectly. For when the Vernacular version is made in such a scholarly and classical style as to make it a puzzle for the candidates to find out the general drift of the passage, it becomes nothing less than sheer injustice. For we ought to remember that the majority of the candidates have not studied their vernacular classics. Most of them have never seen them even. They studied English and they study either Sanskrit or Persian or Latin or Greek or French or any other language but the Vernacular, their knowledge of which is, therefore, confined to the colloquial Vernacular or what they speak and hear at home, while the highly learned scholar who is appointed to render the translation passage into the Vernacular does his best to make it as classical and scholarly as he can. This at any rate is true to the letter in the case of the Gujarati versions set at our Matric. and U. S. F. exams. The result is an unsatisfactory translation. In the words of Sir H. Craik, quoted in the article on Examiners' Notes in the *Record*, "being unable to grasp the general drift of the passage" as rendered into the classicalised Vernacular, for which, however, they are not to blame, the candidates "put down any sort of translation without asking themselves whether it conveys any intelligible meaning and without any attention whatever to style" and are ploughed. But let us see how it affects their education. When they know that they are not required to paraphrase or to show in some other way their ability to comprehend a given passage from some English classic, they give up reading English classics and concentrate their energies on cramming up as much of their grammatical manuals as they can in a twelve month and doing a few pages of translation into English from some Vernacular book. What sort of books the grammatical manuals used in our High Schools are, a veritable hotchpotch of genders, numbers, synonyms, &c., good enough for a reference book, but entirely worthless for the purposes of study, every teacher knows or ought to know; and what a "mechanical transformation gymnastics" the kind of translation into English can be that is done by a native school boy who has not read fully one good English classic in his whole school-life may be left to the readers and the educational authorities to conceive! The net result is that "no work of any standard author is read, the study of English prose and poetry is totally neglected, rather put aside, and grammatical details are crammed up" with thousands and thousands of ill digested idiomatic phrases, synonyms, and words followed by appropriate prepositions. This is learning English in the highest class of our high schools!

Such are the objections against allowing the candidates in the Matric. and U. S. F. exams. to choose translation into English from the Vernacular as an alternative for paraphrase. But it can be shown that the whole question paper in English, as now drawn up, is worthless as a test of the candidate's knowledge of English. But that opens a wide question, and for the present I want to restrict the discussion to the point raised in my last letter.

HEADMASTER.

Educational Notes.

The report on public instruction in Burma for 1897-98 has been issued. The Director has, for the most part, contented himself with a bare statement of facts and statistics (which, as every one knows, are not the same as facts) except in a few instances when he launches into brief but pungent criticism. The year has been one of steady work and progress. Vernacular education, Secondary and Primary, has received the lion's share of departmental attention. This is as it should be in a 'new' province, and had not famine intervened in some parts the total results would have fully justified the policy of the department.

The latter is not allowed to get off without criticism on itself. Several Deputy Inspectors are hauled over the coals for slackness, for undue dallying at head-quarters, and for that peculiarly cross official idea that the work of their own department should be *tabu* to the rest of the world in general. Incidentally the Director sketches the characteristics of a good Inspector. He is a man who infuses life and vigour into his subordinates and shows them what to do; he not only supervizes, but teaches and on his personal influence and effort depends the educational progress of his district.

In the Director's opinion higher education is making slow progress and needs the stimulus of a local university. Calcutta, however willing, cannot supply the needs of Burma. The scale on which the new institution is to be started should be humble as at Bombay, Madras, and Calcutta, but (and this will ring strange indeed to many in Bombay) the Director cannot recommend any of these universities as models for Burma. He thinks that "the lines on which the work of Indian universities is carried on are not conducive to sound education, much less to the needs of my province." The Burmese Government however does not consider Burma ripe for a university as yet.

Features of special interest in Burmese education are the following: the encouragement by Government of Pali learning, the teaching of singing, and the body of men referred to generally as 'itinerant teachers.' We regret that the information given on these points in the report is so meagre and desultory. A careful study, however, can glean enough material to afford some consecutive account of them.

In 1891, a scheme was promulgated to encourage Pali learning, and the effort has been maintained to the year of the report. The objects were to systematize and to improve the methods of Pali study among the Burmese monks who were the custodians of Pali literature in the Province, and also among the many laymen who studied Pali. It was determined to return as far as possible to the old monastic system of examinations in Pali, but at the same time insistance was laid on the necessity of a critical and scholarly study of the language, and the entire abandonment of the old method of merely memorizing texts. As time passed, it was found needful to emphasize still more strongly this proviso, and also eventually to dissociate the scheme from all direct official and ecclesiastic connection. That is, the Burmese were encouraged to deal with the matter themselves, free from the immediate control of Government or of their own church authorities.

Of course, at the start, there was the usual chorus of scoffs and sneers. It was suggested that the advocates of the scheme might as well offer new cassocks and surplices to the clergy of Burma for proficiency in Hebrew. But the friends of the ancient and sacred language of the country kept pegging away regardless of derision, and a central committee was formed on which served both Europeans and Burmans. This body arranged examinations and prescribed edited and published good editions of Pali texts. They were greatly assisted by the trustees of the Arakan Pagoda, Mandalay, and by many Burmese gentlemen. The various monastic institutions of the country are gradually being induced to recognize the work of the committee, and some have applied to be examined through that body. The *pôngyis* are everywhere awaking to the real benefits to be derived from the new course of study in their sacred literature and language, and in 1897 one of their most famous pupils, U. Ketu, obtained the certificate of the Patamagyaw examination.

Singing (at least what Europeans understand as such) has been usually considered an art beyond the attainment of the average Burman, who was thought singularly deficient in musical talent. Although this belief has not been wholly dispelled there is no doubt that of late years it has been considerably modified. In Rangoon a great impetus has been given to the teaching of the Tonic Sol-Fa system, and much progress has been made. Of course this civilizing influence can extend itself only very gradually and at present it does not seem to have spread further than Rangoon. But signs are not wanting that even in remoter districts continuous and methodic teaching would effect a great deal more than has been done in the past or was at one time thought possible. The Karens would sing well if they were trained and some indigenous schools are already showing proficiency in vocal music. We feel inclined, however, to ask, 'Have the Burmans no music of their own and cannot Burmese children be taught to sing *real* Burmese songs'?

The itinerant teachers, to whom we have alluded above, number in all 181 men, averaging about 22 to each of the chief divisions of Burma. They are recognized and registered by Government, and the Director advises an increase in their number and the concession of some travelling allowance to them. On these men depends the extension of primary education in remote and backward districts. They work under the supervision of the Deputy Inspector, and can be removed for slack or inefficient performance of their duties. We should be glad to have had a little more light afforded us as to the methods and qualifications of these itinerant teachers and the class of pupils whom they teach.

POONA NATIVE INSTITUTION.

THE first meeting of the Governing Body of the Poona Native Institution, formed under the order of Government, was held on 5th February 1899, in the Dustoor Hall. In the Governing Body are included the names of Messrs. W. H. Crowe (who could not attend), W. D. Sheppard, Professor Nelson Fraser, Dr. Dustoor Hoshang Jamasp, Messrs. Vaman Prabhakar Bhave and V. R. Jalnapurkar. Mr. W. D. Sheppard, being on tour, expressed his inability to attend the first meeting, and wrote to the Secretary to arrange to convene it as soon as possible. The members of the Poona Native Institution ought to be congratulated on having succeeded in securing the cordial support of the District Judge, the Collector, and Professor N. Fraster. Mr. V. B. Gokhle, the Secretary, referred to the good work done by the Poona Native Institution through the indefatigable exertions of Mr. V. P. Bhave, who secured the sympathy and patronage of distinguished Civil and Military officers, including His Royal Highness he Duke of Connaught and General Lord Mark Kerr, G C. B., during the past twenty-five years. He alluded in feeling terms to the irreparable loss the Institution suffered by the untimely death of Mr. L. N. Indapurkar and to the subsequent heavy losses by famine and the dire plague. He dwelt upon the help which the school received from time to time at the hands of Dr. Dustoor Hosang, who had ably discharged the duties of the Chairman for the past 12 years and entertained sanguine hopes of bettering the fiscal status of the Institution through the Governing Body. The new element of real strength is a god-send.

The following business was transacted :—Mr. V, R. Jalnapurkar was appointed Head Master and Mr. V. B. Gokhle, Secretary ; text-books for the different standards were sanctioned ; Mr. S. N. Talegaumkar was appointed auditor. The business of framing the bye-laws was entrusted to the Secretary, Prof N. Fraser has kindly undertaken to help him in doing the work satisfactorily.

THE Poona Branch of the National Indian Association has made the necessary arrangements to give a hearty reception to Miss Manning on the 19th instant (February 1899).

LORD IVEAGH'S MUNIFICENCE.

LORD IVEAGH has crowned a long series of acts of munificence by his splendid gift of half a million sterling to causes intended to promote the well-being of humanity. As he has already enjoyed for seven years the honour of being a peer of the United Kingdom, even the most malicious of commentators will be unable to associate his philanthropy with self-seeking aspirations of a kind recently unveiled. Indeed, the Guinness family has consistently devoted its great wealth to the public good. Lord Iveagh himself gave a sum of a quarter of million sterling about ten years ago for the better housing of the poor, while the rebuilding of St. Patrick's Cathedral was only one of many generous forms of benevolence which marked the life of his father. It is to be wished that the example of his magnificent donation for improving insanitary areas in his native city could find imitators in India. Bombay certainly offers a far wider scope for this form of philanthropy than Dublin, and the housing of the poorer classes in this and other great Indian cities may be commended to the attention of wealthy men who wish to associate their names and their purses with the improvement of the conditions of life of their less fortunate brethren. But on more general grounds, Lord Iveagh's gifts should be regarded in a spirt of sympathetic emulation by the rich men of India. If millionaire philanthropists in the British Isles can find so many opportunities to give out of their abundance, how immeasurably greater is the field for generosity in this country, with its universal needs and its low standard of health and sanitation? The efforts of Government, far-reaching though they may be, require to be constantly supplemented by private enterprise, both in Great Britain and in India.

THE STUDENTS' SOCIETY'S SCHOOL.

THE annual distribution of prizes to the pupils of the above school took place at the Framjee Cowasjee Hall in the early part of December, the Hon. Mr. Justice Ranade presiding. The hall was crowded with the children and their friends, the former of whom during the afternoon went through a pleasing programme of English and Marathi songs and recitations, all of which were received with applause.

The Hon. Mr. Dajee Abajee Khare then read the annual report of the school, when Miss Manning handed the several prizes to the respective successful pupils.

Mr. Justice Ranade, in addressing the meeting, said: I trust you will permit me to express not only on behalf of the Student's Literary and Scientific Society, but also on behalf of the larger circle of the parents of the girls assembled here to-day, our sincere gratitude to Miss Manning for her kindness in accepting our invitation to attend this place and distribute the prizes. You know well how, during her brief stay here, her engagements have crowded out all her available time, and it is, therefore, peculiarly gratifying to us to find that she made it a point from the first to make room for the engagement that has brought us together this evening. As I was coming upstairs, a Parsee friend enquired when I was going to attend the Social Conference. I replied that the real Social Conference was in the hall upstairs, where many hundreds of Hindoo fathers and mothers had gathered together to enjoy the pleasure of seeing their girls' school performances, and to confer upon the best methods of encouraging each other in the discharge of their duty. The Students' Society, under whose auspices we meet here, has the proud distinction of being the first pioneer body that actively interested itself in the cause of female education on this side of India. It has thrown off vigorous offshoots which thrive more luxuriantly, but the parent-stem is still silently but surely doing good honest work in maintaining the four schools under its charge. Of course, as the report shows, our expectations are high, but our means not adequate. We desire to have a high school, to which our present school will be feeders. Our Anglo-Vernacular school is a step in the direction of the proposed high school. We feel sure that the personal interest which English ladies like the late Miss Carpenter and her worthy successor, Miss Manning, have taken in this cause, and the enthusiasm which her visit to this country has aroused, will in the course of a few years enable the Society to carry out its intentions. I request Miss Manning on behalf of the Society to continue the warm interest she has always felt in the school, and that among the impressions you will carry with you of your second visit, you will find a small corner for the recollections of this evening's agreeable function.

EDUCATIONAL CONFERENCE AT MADRAS.

THE Educational Conference assembled at Madras on the 22nd December 1898, his Excellency the Governor presiding. His Excellency opened the proceedings in an excellent speech. He said the educational policy in India had been a work of stupendous difficulty, and infinite talent and infinite labour had been exerted in the cause of education, but a feeling was growing that the system in force had not succeeded in cultivating the ntellect and in forming good men and good citizens. It had not attained the full measure of success anticipated. Our educational system was similar to the French system, a prominent result being the manufacture of functionaries, and insusceptible of turning out any other product, and, above all, was badly adapted to the making of men. Our system provided for little more than cramming the heads of people with a certain amount of facts and theory, trusting to the people to assimilate these things in the best way they could, leaving the formation of the mind and character mainly to the people's own unguided perceptions, influence, and surroundings, which were not always healthy. Colleges and schools which have been set up were regarded as so many factories for turning out raw materials of youths into the manufactured article of clerks, lawyers, and government officers, and the youths themselves regarded education from much the same point of view, and teachers and professors were not free from the same weakness ; and that only when the fourth standard of the primary department was reached that such measure was calculated to facilitate and stimulate the higher educational grades of study in classical and Vernacular literature. Other circumstances which completely obstructed a sound educational policy in India were the unmaking of the Indian mind for the reception and assimilation of Western teaching. No system of education was possible that did not teach Western ideas, social and political. Such ideas suddenly introduced among an alien people differing from the West in religious and social and political habits and training must at first produce unhealthy conditions. Much that has been absorbed remained unassimilated and undigested. Time was the only remedy for this. His Excellency was further of opinion that no system of education was sound or complete unless religious teaching formed part of it. The difficulty of giving effect to this principle in India he thought insuperable. His Excellency concluded by saying that until teachers and taught were converted from the false belief that the chief aim of education was obtaining passes and diplomas with the ultimate object of gaining money and power, all reforms in the system of education in India, however wisely conceived, would be ineffectual.

The Rev. Dr. Miller heartily endorsed the Governor's remarks, for he had long preached in the wilderness, against the examination mania, which had been desolating the educational world. He had every confidence that the question would be grappled with now, and something really done. Reforms would have to be introduced gradually, for in spite of the drawbacks of the present system, it had, in the face of many difficulties and drawbacks, done great things in the past for the good of this land, and was capable of doing more.

Reviews.

Things of Everyday.—Published by William Blackwood and Sons. Price, 2s. This book consists of selected portions of Prof. Johnston's "Chemistry of Common Life," as revised by Professor Church, a work which has in its time received as much attention and commendation as any book we know on popular scientific subjects.

It is intended primarily for use in High Schools and in evening continuation classes, and it may doubtless convey enlightened and educative views of some of those things of every-day with which all come in constant and immediate contact. The lucid and attractive style make it eminently readable. We extract two short paragraphs :—

"THE DISGUISING OF SMELLS.—Where evil-smelling decay of any kind commences, or where volatile substances which disagreeably affect the organ of smell escape into the air from any source, we naturally desire to rid ourselves of the unpleasant sensation. This we generally wish, and always ought, if possible, to do, by *removing the substance* to which the noisome smell is owing. In the great majority of cases, however, we merely overpower or disguise it. We are content to mingle with the smell we dislike some odour we can enjoy, and to leave floating in the air around us the evil and the good together, to produce unheeded their natural effects upon the system.

"Sweet odours are thus the natural *disguises* of evil smells. They are the only resource of rude and dirty times against offensive emanations from decaying animal and vegetable substances, from undrained and untidy dwellings, from unclean clothes, from ill-washed skins, and from ill-used stomachs. The scented handkerchief in these circumstances takes the place of the plunge and the shower-bath ; the pastille hides the want of ventilation ; the *attar* of roses seems to render the scavenger unnecessary ; and a sprinkling of musk sets all other smells at defiance. The fiercest demand for the luxury of civilized perfumes may exist where the disregard of healthy cleanliness is the greatest. Even the burning of incense at the altar may find a merely rational use in disguising the dank and unwholesome smells which damp floors and walls engender, and in hiding from the senses of the worshipper the noxious effluvia which slowly decaying bodies in hidden vaults are continually giving off. However much, therefore, the employment of fragrant essences may add to the comfort of the cleanly and refined, they may only promote disease and discomfort among the ignorant and barbarous by concealing the deadly malaria, or overpowering the noisome stench."

Psychology in the School-room.—By T. F. G. Dexter, B. A., B. Sc., and A. H. Garlick, B. A. Published by Messrs. Longmans, Green & Co. To those who have made a study of the new Manual of Method published by Messrs. Longmans—a thoroughly practical and comprehensive volume—the present volume might appear superfluous, but it will amply repay a careful perusal, for in it special attention is paid to the *application* of the general principles of the Science of Psychology to the Art of Teaching. We greatly admire the plan upon which the book is drawn up. Following each chapter of subject-matter, there will be found an excellent summary and a series of pertinent questions taken from the examination papers of the College of Preceptors, the Education Department, London University, and several other examining bodies. The Appendix contains questions on Psychology and Physiology put in the Indian Universities in different years. The illustrations are highly commendable. For a teacher's examination, it ought to form one of the chief text-books.

Vom Ersten Bis zum Letzten Schuss.—Kriegserumenungen, 1870-71, by Hans Wachenhusen, and edited by T. H. Bayley, M. A. This is the first publication of a German series, generally edited by Otto Siepmann, Assistant Master at Clifton College, and intended to introduce a number of works by German authors, who are well known in their own country, but whose books are much less known in Great Britain than they deserve to be from their merit.

Books Received.

We have also received the following new books and new editions, some of which will be noticed later:—

Messrs. William Blackwood & Sons.—An Intermediate Text-Book of Geology by Charles Lapworth, F. R. S., etc. Founded on the Introductory Text-Book of Geology by the Late David Page, LL. D., F. G. S., etc. 5s.

Things of Everyday, a popular Science Reader on Some Common Things. 2s.

Messrs. Macmillan & Co.—Elementary Classics, Cornelius Nepos Vol. I. Edited with Introduction, Notes and Vocabulary by Herbet Wilkinson, M.A. 1s. 6d.

C. Plinii Caecilii Secundi Epistularum Liber Primus Pliny's Letters I.-XII. Edited with Introduction, Notes and Vocabulary by C. J. Phillips, B.A. 1s. 6d.

Macmillan's New Literary Readers Standard O. 8d.

Macmillan's English Readers for the North-Western Provinces and Oudh.

Primer: English—Hindi, Ans. 4.
Primer: English—Urdu, Ans. 4.
First Reader, Ans. 6; Second Reader, Ans. 8.
Third Reader, Ans. 10.

Algebra for Indian High Schools with Numerous Examples by John Cook, M.A., F.R.S.E. Rs. 2.

Superintendent, Government Printing, Calcutta.—Vegetable Product Series, No. 44 (Dyes and Tans.) Flemingia Congesta (The Waras Dye). Agricultural Ledger, 1898—No. 16. The Arabian Drug Waras or Wars, a Description of its History, Uses and Composition, with Remarks on its Occurrence in India. By the Officiating Editor. 2 Ans. or 2d.

Mineral and Metallic Series, No. 12. Iron, Agricultural Ledger, 1898—No. 17. The Iron Industry in the Central Provinces. A Memorandum containing extracts from the Reports furnished on the subject by Deputy Commissioners and Forest Officers. Ans. 2 or 2d.

Survey Commissioner and Director of Land Records and Agriculture Poona.—Agricultural Series No. 25 (Food Substances.) Saccharum (Sugar and Sugarçane). Agricultural Ledger, 1898—No. 8. Cultivation of Sugarcane in the Bombay Presidency. Note by Mr. J. W. Mollison, Deputy Director of Agriculture, Bombay

Presidency, with Descriptions of varieties of Sugarcane by Mr. Mollison and Dr. J. W. Leather, Agricultural Chemist to the Government of India.

Messrs. Whittaker & Co.—School Text-Books. Elementary Mathematics including Arithmetic, Euclid, and Algebra by J. L. S. Hatton, M.A., and George Bool, B.A. 2s. 6d.

MILTON'S

Paradise Regained.

An Expository Essay,

BY

R. SCOTT, M.A.,

Professor of English Literature, Wilson College,

BOMBAY.

Price, Annas 8.

E. SEYMOUR HALE,

The Publishing House,

53, ESPLANADE ROAD, BOMBAY.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
19*th September* 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. GILES,
Director of Public Instruction.

THE subjoined Government Resolution, Educational Department, No. 19, dated the 9th January 1899, is published for the information of Educational Officers.

Poona,
20*th January* 1899.

E. GILES,
Director of Public Instruction.

Educational Service—

Ruling of the Government of India regarding the salary to be allowed to a Subordinate Educational Officer appointed to act in a temporary vacancy in the Indian Educational Service or the Provincial Educational Service.

No. 19.

EDUCATIONAL DEPARTMENT,
Bombay Castle, 9th January 1899.

Letter from the Accountant-General, No. G.A.—20061, dated the 12th October 1897:—

"I have the honour to invite a reference to paragraph 16 of the Government of India Resolution in the Home Department, No. 4-EDN.—204-215, dated the 23rd July 1896, in which provision has been made for the grant of a uniform allowance of Rs. 100 per month to an officer of the Provincial Educational Service appointed to officiate for a member of the Indian Educational Service, and to suggest that as no provision has been made in the Government of India Resolution for regulating the salary of an officer of the Subordinate Educational Service when appointed to act in or hold sub. *pro. tem.* an appointment in the Indian Educational Service, the Government of India should be moved to issue orders on the point.

"2. The cases which have given rise to this reference are those of (1) Mr. B. F. Patel, First Assistant Master, Elphinstone High School, who acted as Principal, Elphinstone High School, from the 28th February to the 31st March 1897, under the orders contained in Government Resolution, Educational Department, No. 296, dated the 15th February 1897, and who was made substantive *pro tem.* Principal from the 1st April 1897, by Government Resolution, Educational Department, No. 419, dated the 9th March 1897, and (2) Miss G. Walters, Second Assistant to the Lady Superintendent, Mahalaxmi Female Training College, Ahmedabad, who has been appointed by Government Resolution, Educational Department, No. 1367, dated the 11th September 1897, to act as Lady Superintendent, Mahalaxmi Female Training College, Ahmedabad, during the absence on leave of Mrs. L. F. McAfee.

"3. Neither Mr. Patel nor Miss Walters holds a substantive appointment, in the Provincial Educational Service (*vide* Government Resolution, Educational Department, No. 1074, dated the 19th July 1897."

Letter to the Government of India, Home Department, No. 1716, dated the 15th November 1897:—

"I am directed to forward herewith copy of a letter from the Accountant-General No. G.A.—20061, dated 12th October 1897, in which he asks that the orders of the Government of India may be obtained as to the salary to be allowed to a Subordinate Educational Officer, who is appointed to a temporary vacancy in the Indian Educational Service. Although in paragraph 24 of the Government of India's despatch No. 351, dated 11th December 1895, and paragraph 16 of Home Department Resolution No. 4-EDN.—204-215, dated 23rd July 1896, the temporary appointment of officers on the Provincial List only to the Indian Educational Service is contemplated, it is sometimes necessary and desirable to appoint officers in the Subordinate Service to temporary vacancies in posts reserved for members of the Indian Educational Service, and His Excellency the Governor in Council is of opinion that in such circumstances the Subordinate Officer should be given the same allowance as is admissible to a Provincial Officer, *viz.*, Rs. 100 per mensem, subject to the proviso that the salary of the acting incumbent shall not be higher than the pay of the officer for whom he acts."

Letter from the Accountant-General, No. G.A.—34427, dated the 11th March 1898.

Letter from the Accountant-General, No. G.A.—1516, dated the 18th April 1898.

Stating, with reference to Government Resolution No. 317, dated 12th March 1898, that on the last two occasions on which Rao Bahadur Alumal T. Bhojvani acted as Educational Inspector in Sind, he was, under the orders contained in paragraph 6 of Government Resolution No. 1074, dated 19th July 1897, allowed to draw an allowance at Rs. 100 per mensem, admissible under paragraph 16 of Government of India Resolution No. 4-EDN.—204-215, dated 23rd July 1896, to officers of the Provincial Service officiating for members of the Indian Educational Service, observing that as Rao Bahadur Bhojvani, as Deputy Educational Inspector, belongs to the Subordinate Service his case is similar to that of Mr. B. F. Patel and Miss G. Walters, reported to Government in his office letter No. G.A.—20061, dated the 12th October 1897, in which it was suggested that the Government of India might be moved to regulate the salary of an officer of the Subordinate Educational Service appointed to act in an appointment in the Indian Educational Service; and remarking that in these circumstances he is unable to fix Rao Bahadur Bhojvani's salary in the absence of orders on the cases referred to above.

Letter from the Accountant-General, No. G.A.—12381, dated the 18th July 1898.

Letter from the Government of India, Home Department, No. 289, dated the 14th September 1898.

Letter from the Government of India, Home Department, No. 409 (Education), dated the 30th November 1898:—

"I am directed to reply to your letter No. 1716, dated the 15th November 1897, in which you ask for the orders of the Government of India regarding a proposal that an officer of the Subordinate Educational Service when appointed to act in a temporary vacancy in the Indian Educational Service should be granted the same allowance as is admissible to an officer of the Provincial Educational Service, *viz.*, Rs. 100 a month; provided the salary of the acting incumbent shall not be higher than the pay of the officer for whom he acts.

"2. In reply I say that after carefully considering the subject the Government of India agree with the Government of Bombay that an allowance should be granted under the circumstances stated, but are of opinion that the allowance should not be so high as that granted to an officer of the Provincial Service. The Governor-General in Council has accordingly been pleased to decide that an officer of the Subordinate Educational Service may, in future, be granted an allowance of Rs. 75 a month when appointed to act in an appointment specifically reserved for an officer of the Indian Educational Service, and an allowance of Rs. 50 a month when appinted to act in an appointment specifically reserved for an officer of the Provincial Educational Service. If the post may ordinarily be held by an officer of either the Indian or the Provincial Service, the lower allowance should be granted to a Subordinate Educational Officer appointed to act in it. It is to be understood that any such appointments are distinctly temporary and exceptional.

RESOLUTION.—The orders of the Government of India should be communicated to the Accountant-General with reference to his letter No. G.A.—20061, dated 12th October 1897, and to the Director of Public Instruction, the Private Secretary to his Excellency the Governor and the Financial Department for information.

R. B. STEWART,
Acting Secretary to Government.

It having been decided to introduce bound copy-books into Marathi-Schools in the Central and Southern Divisions, undersigned will be glad to receive applications for the supply of the necessary number of copy-books at a price not exceeding annas 2 per book. The following particulars are given for the information of those who wish to undertake the work. Applications with samples must reach undersigned within three months from the date of this notification :—

(*a*) The Marathi copy-books to be on the same model as English copy-books, for example, those published by Messrs. Macmillan and Co.

(*b*) Each copy-book to contain 24 pages.

(*c*) Every 5th page of the copy-book to be devoted to the Balbodh character, the other pages being given up to Modi writing.

(*d*) The copy-books to form a series of 4 numbers.

No. I. for Standard	II.
No. II. for do.	III.
No. III. for do	IV.
No. IV. for do.	V.

(*e*) Each page should have the copy at the top, the 2nd line to repeat the copy in dotted lines, and the remaining line or lines on the page to be spaced, but to be left blank for the pupil's writing.

(*f*) The copies should be progressive—Easier formations always preceding the more difficult ones.

(*g*) Sample copy-books to be supplied to undersigned to show the quality of the paper to be used in the aftersupply, in case of approval.

2. The applicant whose samples are approved should be ready to supply schools with the necessary number of copy-books at the stated price within a reasonable time, to be agreed upon by undersigned, from the date of approval.

3. The applicant whose copy-books are approved will receive the patronage of the Department for 5 years from the date of final approval on condition that the supply is good, regular, and up to the sample submitted.

Poona, Educational Inspector's Office, 9th January 1899.

R. D. PRIOR,
Educational Inspector,
Central Division.

NORTHERN DIVISION.

Public Service Certificate Examination.

The following Books are appointed for the examinations to be held in the month of September 1899 in accordance with the revised Regulations published in the *Bombay Government Gazette* of the 17th January 1895, and the subsequent modifications published at page 720 of the *Bombay Government Gazette*, Part I, dated the 11th August 1898:—

FIRST GRADE.

(1) *English. Prose*—Scott's "Ivanhoe."
Poetry—Shakespear's "Henry VIII."

(2) *Gujarati*—"Balmitra," Vol. I.

(2) *French*—Souvestre's "Philosophe sous les toits.'

SECOND GRADE (Schedule A).

Scheme 1.

(2) *English*: Prose—(1) Macaulay's "Warren Hastings," or Irving's "Sketch Book."
Poetry—"Paradise Lost," Book II, or "Cowper's Task," Book II.

(3) *Urdu*—Bagh-o-Bahar," Second Darvesh.

Scheme 2.

(2) English: Prose—Chambers' "Exemplary Biography," first third; or Lamb's "Tales from Shakespeare," the following Tales:
"Tempest," whole.
"Timon of Athens," whole.
"Othello," whole.
Poetry—Goldsmith's "Traveller" or Scott's "Rokeby," lines 1—400.

(3) *Gujarati*—"Narmagadya," Fifth Edition, pages 1—197.

(3) *Urdu*—"Abi-Hayat," or Tanbateen Nasoob."

THIRD GRADE (Schedule B).

Scheme 2.

(2) *English*: Prose—"Robinson Crusoe" or Bunyan's "Pilgrim's Progress."
Poetry—Scott's "Marmion," lines 1—400.

Scheme 2.

(2) *Gujarati*—Departmental "Seventh Book," with explanation and recitation of the first 300 lines of poetry from the 7th book.

(2) *Urdu*—"Abi-Hayat," or "Tanbateen Nasoob," by Molvi Nazir Ahmed.

N.B.—The Books prescribed for condidates at the Thana Centre are those notified for the Central Division.

J. OLIVER,
Educational Inspector, N. D.

Ahmedabad, 6th December 1898.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY (NEXT TO THE SMALL CAUSES COURT).

1. The following new books and fresh additions are now available in the Library.—

2. The Library and Museum are open to the public

every Saturday from 7 to 11 A. M. (Bombay time), and on other days by arrangement with the Curator.

3. See notice in *Record* for February 1887, page 44.

R. D. PRIOR,
Educational Inspector, C. D.

Poona, 18th January 1899.

Author.	Title of Work.	Publisher.	Price.
	Class 6:—Arithmetic.		Rs. a. p.
S. R. Aiyar.	A Text-book of Arithmetic for Middle Schools.	Srinivasa Varadachari & Co.	0 10 0
	Class 7:—Atlases.		£ s. d.
	Philips' Series of Map-Drawing Books, Nos. 1-10, 12-15, 17-20 and 22-24.	G. Philips & Son.	0 0 3
	Philips' "Standard" Outline Atlas.	Do.	0 0 6
	Philips' Preparatory Atlas of Blank Projections.	Do.	0 0 6
	Philips' Preparatory Outline Atlas.	Do.	0 0 6
	Philips' Atlas of Blank Projections for Beginners, 1st Series.	Do.	0 1 0
	Philips' Atlas of Blank Projections for Beginners, 2nd series.	Do.	0 1 0
	Philips' Outline Atlas for Beginners, 1st series.	Do.	0 1 0
	Philips' Outline Atlas for Beginners, 2nd series.	Do.	0 1 0
	Philips' Series of Map-Drawing Books, Nos. 2-14, 16-19, 21-22, and 24.	Do.	0 0 6
	Philips' Imperial Atlas of Blank Projections, 1st series.	Do.	0 1 0

Author.	Title of Work.	Publisher.	Price.
	Philips' Imperial Atlas of Blank Projections, 2nd series.	Do.	0 1 0
	Philips' Imperial Outline Atlas, 1st series.	Do.	0 1 0
	Philips' Imperial Outline Atlas, 2nd series.	Do.	0 1 0
	Class 10a :—Catalogue of Books, &c.		
	The Book-Seller for December 1898.	Whitaker & Sons.	0 0 6
	Class 25:—English Language, &c.		
R. F. Winch, M.A.	Macaulay's Essays on William Pitt, Earl of Chatham.	MacMillan & Co.	
F. Ryland, M.A.	Pope's Essay on Man.	G. Bell & Sons.	
R. F. Winch, M.A.	Macaulay—The Life and Writings of Addison.	MacMillan & Co.	
	Class 29 :—French.		
S. Barlet.	Petites Ames.	Do.	
	Class 50:—Miscellaneous.		
	The Practical Teacher for November 1898.	T. Nelson & Sons.	0 0 6
	Class 57 :—Physics.		
D. Rintoul, M.A.	An Introduction to Practical Physics.	MacMillan & Co.	

Madras Notifications.

CIRCULAR No. 13547.

Officers of the Department who are obliged to be absent from their duties doing work in connection with the University or other examinations for which they receive remuneration will be considered to be on casual leave during the days they are so absent—such casual leave counting against the maximum number of days allowable under the rules. The five days' limit will apply to this case also.

(Sd.) D. DUNCAN,
Director of Public
Instruction.

Office of the Director of Public
Instruction, Madras,
29*th November* 1898.

CIRCULAR No. 13723.

Read again Proceedings, No. 12074, dated 12th December 1894.

Article 6, Chapter VIII of the Educational Rules, lays down that, to be eligible for admission to the Teachers' Certificates examination to qualify for a trained teachers' certificate, a candidate must have gone through the prescribed course at a recognized training institution.

Every cadnidate for a trained teachers' certificate of a particular grade should, accordingly undergo training for that grade.

In the case of a candidate who, having been trained for a certain grade, passes the general education test of a higher grade, it is open to him to qualify for an untrained teachers' certificate of such higher grade, provided he is otherwise qualified for it. Should, however, he desire to qualify for a *trained* teachers' certificate of such higher grade, he must undergo training again for that grade for a period of at least one term. If, however, the head of the institution in which he is being trained considers that a full course is necessary, he must undergo training for two terms.

(A True Extract.)

D. DUNCAN,
Director of Public
Instruction.

Office of the Director of Public
Instruction, Madras,
6*th December* 1898.

Established 1864—1894. *Re-issued* 1898.

The Bombay Educational Record and Literary Journal.

Vol. XXXI.] MARCH 1899. [No. 9.

Industrial Education—A Criticism.

(*Contributed.*)

PART II.

The question of questions to which Mr. Talati has devoted "8 years of anxious days and nights, spending all the saving of his life" as we are told ruefully, is: What shall we do with 'Our boys.' Mr. Talati ought to bear up. His son's reward (which is also his own) is at hand, for has he not succeeded in making no less than 10 different varieties of dressed skins and hides, which comes to something more than one variety per year, a goodly record indeed? It now remains to settle down and then "there will be enough of reward, walks to the bandstand, restaurants, and ice-creams galore." Even if such a *summum bonum* be not quite near, there is the second caution: "Have patience and perseverance and the warm assurances" 'I may assure you that you will succeed in the end' and 'Do as I have done and you are sure to succeed.' But Mr. Talati is nothing if not self-contradictory. We are advised to make 'Our boys' Manufacturers and Directors of great Industries (what splendid titles for 'our boys' the D.G.I. and M. D. G. I. would make!) for the reason that service is derogatory. Here are Mr. Talati's own words: "Service is among us (?) considered low, the term for it is *kanisht*," and yet in the very next column we are asked to "remember the following two lines of a great poet, 'Honour and Shame,' &c.," and the third caution of Mr. Talati's, "Do not consider any work low, nor yourself above any kind of honest work." Is not service honest work then? By-the-bye, Milton, Shakespeare, Wordsworth, Tennyson and others were evidently not in vogue in Mr. Talati's school-days, or they do not come up to Pope in Mr.

Talati's judgment! They probably did not write in favour of industrial education or on the dignity of manual labour! But Mr. Talati's great poet himself has a couplet which is well worth quoting: "Worth makes the man and want of it the fellow. The rest is all but leather and prunello." Is the education which Mr. Talati has been advocating calculated to give us the latter class of citizens or the former? Again, Mr. Talati cautions 'Our boys' against fine dresses, walking sticks, and all kinds of self-indulgence, but is good enough to assure them in almost the same breath, at any rate in the same paragraph, that they shall have "enough of reward once they settle down." So again Mr. Talati poses as a well wisher of higher education, yet runs a tilt against it, by twitting the lawyers and doctors and disparaging Government Service and such things as have a tinge of liberal education! But it is high time to examine this question of questions: What to do with 'Our boys.' If we may be permitted to indulge in a little common place like Mr. Talati, we should answer: "make pickles of them," as the *Gujrati* retorts to such questions. Mr. Talati has, of course, solved the problem in his own original way, and his reply is: Make them 'tailors, shoemakers, goldsmiths, &c., which require neither capital nor much scientific knowledge; or tanners, dyers, leather-dressers, &c., which require both capital and thorough scientific knowledge; or provision-vendors distillers, druggists, &c., which require thorough scientific knowledge and a little capital; or metal-workers, stocking-weavers, carpet-manufacturers, &c., which require capital and manual skill'; and the whole host of them, for which the reader is requested to turn to the list of indutries given at the end of the lecture for ready reference. Mr. Talati only forgets that we have already an army of men in each of the industries named, who find it as much as they can do to keep the wolf from their doors, without our being asked to add 'Our boys' to their number. Here we picture Mr. Talati breaking in with "there I have you, gentleman, you have not at all understood me." "Patience, good Sir," we beg to rejoin; "we know exactly what you have been driving at for these 8 weary years; you want barbers, shoemakers, and tailors of the new type that will keep diaries and pocket-books and be punctual to a minute, and whose tools will be as 'keen as the razor's edge invisible,' that's what you want." But what a strange confusion of thought and perversity of genius there is in the advocates of industrial education? For if these be the things we want—punctuality, honesty, scrupulous fulfilment of one's duty, it is not industrial education that will furnish them. Such virtues and many more besides, as a schoolmaster of Mr. Talati's experience ought to have known, fall within the province of liberal education. So far, therefore, we agree fully with what Mr. Talati has in view, though we have the misfortune to differ *in toto* from all that Mr. Talati has said. He, like ourselves, perceives that we ought to educate our young men in the right sense of duty and train them to become worthy citizens, whatever calling they may choose to follow in life. But, instead of going the right way to secure such a desirable object, he points to a remedy that will make matters worse than they are. Mr. Talati wants men who will "keep good instruments, have a light hand, do their work well." Now, it is quite evident such acquisitions come by steady practice from an early age—and what can be more calculated to secure them than the system in vogue with us? Therefore, the salvation of 'Our boys' does not lie in industrial education. Again, the shibboleth of industrial education has been put forward as the panacea for the evils of poverty: "not only shall we (by its means) prevent the drain of our wealth, but we shall get the wealth of other countries." The cry really is more money, and industrial education is only the white sheet to cover the rotten corpse underneath. We do not quite see how the object is to be gained, how Mr. Talati's boys who learn to be barbers and shoemakers are to earn more than what those classes of workmen do earn at the present day. It is purely a battle of the standards. European artizans and workmen earn more than the generality of Indians, because among Europeans the whole standard of life is far higher than among the natives of India. For a good cutter whom European firms would pay Rs. 5 per day, our native employer would pay at the most Rs. 2. They would grudge to pay Re. 1 per diem to the cleverest tailor who in an European firm would easily earn Rs. 2 a day. If Mr. Talati and his friends were to increase their customary rates of wages in the case of all industrial men to the European standard, the necessary men would soon be forthcoming without any schools of industrial education, even with pocket books and diaries, if the gentlemen so wish it. Extremely low wages is not the case only with the lower arts among Indians, but the same disparity is to be seen in the higher and more respectable occupations, as any one can satisfy himself by comparing the salaries of European and Native

Drivers, Guards, Mill Managers and Engineers, &c. In all industries, in all kinds ot business, the standard for Europeans and that for the natives are as the poles apart. We find the same rule prevailing in commerce. The pay of European agents or salesmen is Rs. 500 and more, with first class travelling; that of natives employed in the same capacity is Rs. 200* or thereabouts, with second class travelling, which, in some cases, is brought down to the intermediate class. Why did the Brahmins of the Hindus and the Mobeds of the Parsis give up their priestly profession and turn to secular occupations? Because they were not adequately paid for their work, rather much underpaid, and they found that by entering the learned professions or Government Service or by engaging themselves in business and trade they could earn much more and live far better than as priests. What then is to be the good of special industrial education when the object at bottom is not to supply any desideratum, but to enable a few of our young men to earn more than is possible under the existing circumstances, which we have seen is not likely as long as the native standard of remuneration remains unchanged. On the contrary, there is a probability of the standard being lowered as the number of available hands increases and grows in excess of the demand. If, however, the real object be to have more punctuality, honesty, and sense of duty, we should think it to be the work of scholastic education on sound principles and not of industrial instruction. Moreover, we assure Mr. Talati that if he becomes a little liberal to his tailor, barber, and the like of them, he will find them quite punctual and true to their word without having attended any industrial institution. A merry workman does the best work.

But whom does Mr. Talati include among 'Our boys'? Does he use the words generally or merely for the sons of the well-to-do classes? Does that 'Ours' mean Indian or only the Upper few? To us it seems as if it was only the latter to whom the lecturer was alluding. 'There are many trade secrets which should not be known to your workmen,' says Mr. Talati. 'They should not know what ingredients you use, in which proportions you use them, or how they are to be prepared.' We wonder if in the industrial and technical institutes that are to spring up all over the country under the auspices of associations like the P. I. A., those secrets will be taught to all freely and openly, or only to the sons of the members of the associations and such others as hold a ticket from them. Again, 'there are solutions which must be kept secret and prepared by himself,' that is, the great man's son who takes charge of the industry. So the labourers are to remain labourers and the workmen to continue to be workmen, and, worse still, it is but probable that their wages may become lower than at present. How, then, is the new kind of education to benefit the country? Probably, by the monies of other countries, which Mr. Talati's son and others engaging in similar pursuits are to draw away from foreign countries, and which we dare say they will distribute amongst the people of India, instead of depositing them with the banks or investing them in Government securities. If we were wise, we ought to have seen the mistake we have already committed in the matter of learned professions by enabling, at a trifling cost, the sons of rich and well-to-do people to become lawyers, doctors, engineers, &c., the result of which is that they charge enormous fees* for doing their work, which make, them rich no doubt, but at the expense of the masses who grow poorer. Thus, if we probe Mr. Talati's shibboleth to the bottom, one and only one fact comes out very prominently, and that is Mammon-worship. The thing is thus in a nutshell. England has grown rich by her manufactures and trade, and our countrymen want to be rich like the manufacturers and traders of England. The plausible argument, of course, is the regeneration of India: that by means of manufactures and industries the country at large will be benefitted. The same thing was and still is said about commerce. But the fact to our grief is that such is not found to be the case. Only a few individuals (few, of course in comparison with the population of the country, though many numerically) monopolise everywhere and grow enormously rich, whilst the people, the masses, become poorer day by day, presenting the frightful spectacle of a few men gorged with wealth, whilst thousands of their brothers are dying of hunger. What guarantee is there that the same will not be the result of the new branch of enterprise suggested by the advocates of industrial education. Mr. Talati's son having learnt the secret of leather-dressing, and succeeded in perfecting his processes, has a fair prospect, if he can raise the necessary capital and make a start under sufficient patronage, as father and son have been trying to secure, to become a millionaire. But human nature is so selfish, a millionaire wants to become a multimillionaire by grinding down the labourers and workmen till he has sucked out the very last drops from their bodies, when he throws them away as worthless and useless for his purpose and begins with a fresh batch, as Mr. Talati himself says, 'he can train up new men when old men leave him.' as if those poor soul-less bodies were created for such men to become millionaires. Proofs of it abound in the lecture. 'Industry is more lucrative than service; we have not heard of a man grown rich through service; all the wealth that we have heard of has been made either through commerce or manufacture'; and those tempting rewards, restaurants, ice-creams, drives to the bandstand, fine clothes and walking sticks for evening walks, turning raw material worth one pice into an article worth sometimes as much as a rupee, getting the wealth of other countries, so forth, and so forth. But all that is kept in the back ground and attempt is made to hoodwink us by arguments like this: "I am convinced that the *regeneration of India* depends chiefly on the development of the material resources of the country." The italics are ours.

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* These rates, as well as those given above, are only comparative. It must also be mentioned that if the European rates are high, their standard of living is correspondingly high. An European earning Rs. 500 a month spends it generally on his living. Not so the native. He spends at the most Rs. 200, and goes on accumulating the rest to become a millionaire in the course of time.

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* Enormous in comparison with the paying capacity of the people, the fees having been fixed on the English standard, which is a high one even among European standards.

This development of the material resources is another expression which has been used pretty freely in the lecture. What are the particular resources, in what direction and how they are to be developed, we are not informed. But the sleeping cat dreams of mice, and Mr. Talati of his leather-dressing. More than that we are not told about the development. In the same connection Mr. Talati gives instances of England, Germany, and Japan, how they have grown rich of late. Now, we do not deny there are advantages in developing the industries to a certain extent. But as now understood and proposed by our countrymen, the advantages are all centred in lucre. Mr. Talati and men of his ilk will never, we venture to assure them, grow rich by such development which with those nations is equivalent to increased production by means of improved machinery. On whom are they going to thrust their products? They must find out a country as rich as India originally was, or, for the matter of that, still is—but disunited and torn by internal dissensions as well as subjected to foreign yoke—that will without resistance buy what India has to offer at her own price. The conditions of commerce have been so arranged between England and India that a large stock of the products of English manufactures and industries find their market in this country. Many persons, like our lecturer and his supporters, will say that it may be so in the case of England, but how about Germany and other European countries, and, above all, Japan. See how rapidly they are developing and swamping us with their productions. True, say we, but all that is due to the very same conditions which England has imposed on Indian commerce and industries, thereby fettering her in the competition. Can Japan succeed in the European countries or the United States, or any of the latter countries in Japan?* No; and why not? Because each of them is free to make her own conditions and adjust them to the actual needs of the time. Can India do the same? No. Here the conditions are laid down from the point of view of England. Hence, under those conditions, other nations also are benefitted, and recently more than the dominant country, at the expense of India. If India were not tied down to her principles of free trade, if she had a free hand to protect her trade, none of the countries cited in the speeches would succeed in thrusting its goods on India at a profit to itself.

For once in the whole lecture Mr. Talati is right, and we agree entirely with him when he says 'there are people in Poona who can spare thousands of rupees, if not lakhs; and that for big concerns millionaires are not required but many persons able to pay thousands or hundreds' and exhorts them to 'wake up and start such manufactures.' Manufactures and industries on a large scale depend for their success on combination, not on some unknown quantity of the name of industrial instruction. They require capital and intelligence. We have examples of the kind in the many successful trades now flourishing in northern India, such as the Indigo industry of old, the manufacture of soap and woollen cloth, the Punjab industry in cricketing gear and all goods for outdoor games, and lastly, the latest one in Delhi for the manufacture of biscuits on the English model. All these have succeeded to a greater or less extent in replacing European-manufactured goods in their lines and are becoming thriving industries. Now there has been nothing like industrial schools and technical institutes in either the N.-W. Provinces, the Punjab, or Bengal. And yet a few earnest individuals combine together to raise the necessary capital, and we have thriving industries. So it does not need any special education to start industries or manufactures. Only capital and intelligence are needed. The necessary intelligence is developed by the system of education established by the state although it does admit of correction as we have pointed out already and the capital can be easily collected if our leaders, instead of talking and lecturing, dived their hands into their own pockets and invested whatever much or little they could spare. But though we have agreed with Mr. Talati so far we have also a caution to put forth like him. Let any industry or manufacture you wish to start be worked in the interest of the country and the people. If Mr. Talati wants industries to be introduced in order that advocates of industrial education should become the directors and managers and have the cream of the business leaving the workmen to toil and starve on underpay and extra hours, those very industries will be the curse of the country instead of being the means of prosperity, and we would rather the country remained without them than be ground down any further. We shall indeed be thankful to Mr. Talati and the members of the P. I. A. and their colleagues if they combine and start an industry or two in Bombay or Poona by raising the necessary capital amongst themselves from their own accumulations and with their sons and relatives as the workmen, recovering the interest of their monies from the profits at the prevailing rate in the country and distributing the remainder amongst the workmen in lieu of wages or salaries. But if self-aggrandisement and spoliation of the masses be the object underlying industrial enterprise, then may Heaven forbid it.

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* It is likely that those countries may succeed to some extent in England on account of its being bound to the policy of free trade under all circumstances while they are free to avail of protection.

We have now discussed the main arguments of the advocates of industrial education in favour of their new hobby. The rest of Mr. Talati's lecture is taken up with cautions and qualifications.

"Remember," says Mr. Talati, "I do not say that people should not receive higher education. I say, by all means receive as high an education as you can—go up to the matriculation examination at least. I also advise you to study the natural sciences, particularly chemistry and physics." Mr. Talati's notions of higher education must be curious. His experience ought to have told him this much at least, that under our existing system of education 'going up to the matriculation' is not higher education and that a thorough knowledge of the natural sciences, such as could be expected to be of any practical use in life, is only possible when the student enters upon the collegiate course. After the above declaration Mr. Talati proceeds to make a virtue of necessity, by suffering the lawyers and medical practitioners to exist for the present, in these words. "Then, again, do not misunderstand me. I do not say no one should be a pleader, a solicitor, a barrister, or a doctor. The world under present circumstances cannot go on without them; they too are useful in their way," by which it is probably meant that leather-dressing is more useful than the healing art and hair-dressing than legal lore. But Mr. Talati is good enough to explain himself: "What I say is that all educated persons should not join these already overcrowded professions; but some of them at least should think of taking up industries." Will Mr. Talati condescend to explain what is the percentage of *all* educated persons to the total population, and again that of those who join the overcrowded professions to *all* the educated persons. The lecturer's fling at the learned professions is unwarranted by the facts and the circumstances.

The Director of Public Instruction, the Hon. Mr. Giles, with his sturdy commonsense and the Englishman's characteristic love of the practical summed up the lecture and the speeches in a few pithy sentences, bringing the problem of India's regeneration within the scope of practicability by drawing the attention of those present to the two things that India needs,—sound education and combination. Let us hope that Mr. Talati, a school master himself, following the traditions of his noble profession, will leave industries and agriculture alone and turn all his efforts and attention to impart sound education to his countrymen, wherein alone lies the true regeneration of India. As Principal Hathornthwaite said only the other day. 'The object of education was not to convert a boy into a clever money-making machine, that was a sordid and miserable view from which to regard education. But a boy had to be educated so that he might take his part in the world as a useful, lawful, law-abiding citizen and a God fearing man. If children were trained to try to think intelligently for themselves, then such an education would be of the greatest value whatever their position in life. Now-a-days they were always hearing a great deal about education and the necessity of progress, of course they must progress, but not too quickly or else mistakes would be committed which would afterwards have to be repented. No doubt as time went on there would be improvements in methods of teaching and school administration just as there had been in the past; and in some respects no doubt teaching would be better done than now. But although there might be improvements in some respects, yet in one important respect there never would be or could be any improvement, *viz.*, in the right aim to put before all those who had to educate the young, the aim which made the name of Arnold great as a school master and Rugby what it was among English schools. That aim was the great one of forming the character of the young upon truly religious lines, and of training boys to be true, generous, noble, and filled with an earnest determination to do their duty and what was right. When boys had mental gifts bestowed upon them by their Creator, then they had to be taught to use those gifts *for the service* of God as well as man, and even if they were only mediocre in ability and had no special gifts, yet all alike had to be true to the grand idea that duty was duty, that right was right, and higher than all else that could be named. Let them take for their guiding principle in life the motto :

Onward onward will we press
In the path of duty;
Virtue is true happiness,
Excellence true beauty.

The Indian University System.

SPEECH BY LORD CURZON.

CAUTIOUS REFORM, NOT WHOLESALE RECONSTRUCTION.

At the Convocation of the Calcutta University on February 12, his Excellency the Chancellor said:—Mr. Vice-Chancellor, Ladies and Gentlemen,—Amongst the most honourable, and certainly not the least pleasant, duties that devolve upon the Viceroy is that of presiding as Chancellor at the Convocation of this University. If I may venture to say so, to me the task is one of peculiar gratification and interest, for I will not conceal from you that I am a University man to the core of my being, and that deep down in me, behind the mask of the official immersed in public affairs, and beneath the uniform of state, there lurks an academic element ineradicable and strong, connecting me with my old University days, and infecting me with a natural sympathy towards those who, although in different circumstances and under a different clime, can also claim connection with a University. (Applause.) It has been reserved for you in fact to put the crown upon an otherwise imperfect academic career. I have been an Undergraduate of a University, a Bachelor of Arts, a Master of Arts, a Fellow of a College, and a Member of Convocation, but a Chancellor I have never been until to-day. (Applause.) Perhaps when Sir Francis Maclean and I, some years ago, entered Parliament together—a situation which is not very productive of academic repose—we little thought that the day would one day arrive when, clad in fine raiment, we should appear upon the *dais* side by side as Chancellor and Vice-Chancellor of a University. I must be allowed to congratulate you upon having secured the services of Sir Francis Maclean as your Vice-Chancellor. (Applause.) That the Chief Justice of the High Court of Calcutta should be *de facto* head of your governing body seems to me a very fitting examplification of the harmony that should prevail between the two cognate branches of human knowledge and learning. May I be allowed also to congratulate myself upon the discovery which I have made from the study of your proceedings on previous occasions, namely, that while but few observations are expected from me this afternoon, the real burden of the performance will fall upon shoulders that are so well fitted to bear it—in other words, upon the Vice-Chancellor himself. Though I am but a new-comer in this country, I am yet not so ignorant of its educational system as not to know that when I speak of my own connection with a University in England, I am speaking of something very different from the University system which prevails here. A residential teaching University, such as Oxford or Cambridge, with its venerable buildings, its historic associations, the crowded healthy competition of its life, its youthful friendships, its virile influence upon character, its *esprit de corps*, cannot either in Great Britain or in any country be fairly compared with an examining, degree-giving University such as yours. They are alike in bearing the same name, in constituting parts of a machinery by which in civilised countries all peoples work for the same ideal, namely, the cultivation of the higher faculties of man, but they are profoundly unlike in the influence that they exert upon the pupil, and in the degree to which they affect not so much his profession as his character and his life. Nevertheless, inevitable and obvious as these differences are, there may yet be in an examining University—there is in such institutions in some parts of my own country, and still more abroad—an inherent influence inseparable from the curriculum through which the student has had to pass before he can take his degree, which is not without its effect upon character and morals, which inspires in him something more than a hungry appetite for a diploma, and which turns him out something better than a sort of phonographic automaton into which have been spoken the ideas and thoughts of other men. (Applause.) I ask myself, may such things be said with any truth of examining Universities of India? I know at first sight that it may appear that I shall be met with an overwhelming chorus of denial. I shall be told, for I read it in many newspapers and in the speeches of public men, that our system of higher education in India is a failure, that it has sacrificed the formation of character upon the altar of cram, and that Indian Universities turn out only a discontented horde of office-seekers, whom we have educated for places which are not in existence for them to fill. Gentlemen, may I venture to suggest to you that one defect of the Anglo-Saxon character is that it is apt to be a little loud both in self-praise and in self-condemnation? When we are contemplating our virtues we sometimes annoy other people by the almost pharisaical complacency of our transports, but equally, I think, when we are diagnosing our faults are we apt almost to revel in the superior quality of our transgressions. There is, in fact, a certain cant of self-depreciation as well as of self-laudation. I say to myself, therefore, in the first place, is it possible, is it likely, that we have been for years teaching hundreds and thousands of young men, even if the immediate object be the passing of an examination or the winning of a degree, a literature which contains invaluable lessons for character and for life, and science which is founded upon the reverent contemplation of nature and her truths, without leaving a permanent impress upon the moral as well as the intellectual being of many who have passed through this course? (Applause.) I then proceed to ask the able officials by whom I am surrounded and whose trained assistance makes the labour of the Viceroy of India relaxation rather than toil, whether they have observed any reflection of this beneficent influence in the quality and character of the young men who entered the ranks of what is now known as the provincial service, and when I hear from them almost without dissent that there has been a marked upward trend in the honesty, the integrity and the capacity of native officials in those departments of Government, then I decline altogether to dissociate cause from effect. I say that knowledge has not been altogether shamed by her children, grave as the defects of our system may be and room though there may be for reform. I refuse to join in a wholesale condemnation which is as extravagant as it is unjust. (Applause.) But, gentlemen, when I admit the existence of imperfections, you may say that as the head of the Government it is my duty to define them, still more to find the remedy. May I remark, in reply, that though I have been here long enough to find out that everything is not perfect, I have not been here long enough to dogmatise as to how perfection may be attained? Perhaps, in succeeding years, I may be able to express opinions which will be less presumptuous than they would be at the present time. On the whole, I believe, the present system to be faulty, but not rotten; I feel that cautious reform, not wholesale reconstruction, should probably be the motto of our action. (Applause.) There is one consideration, however, by which I am forcibly impressed. I find myself Chancellor of this University in virtue of my office as the Viceroy of India. I draw from this fact the not unnatural conclusion that the Government of India assumes some direct responsibility not merely for this University—the functions of which, I am informed, extend over the Central Provinces, Burmah, Assam, and Ceylon as well as Bengal—but also over the entire system of which this University is the exemplar and the head. At the same time I am not certain that the Supreme Government applies as close an attention to, or exercises as genuine a supervision over education, as it might do. There is no separate Educational Department in the Government of India as we have it in England, with an organization and staff of its own; and there is no official charged with the ministerial or secretarial management of education alone. May it not be that we have been somewhat remiss ourselves in the task, and that we have been expecting a plant to flourish when we have not sufficiently exerted ourselves to trim and prune its branches? (Applause.) This only I will say before resuming my seat to-day, that the whole subject of education in this country, in which, I think, are involved both the reputation of England and the future of India, will, during my term of office, have my earnest attention, and that I shall hope annually to attend this Convocation to show myself not unworthy of the honourable post which I am permitted to fill. (Applause.)—(*Times of India.*)

National Indian Association.

BOMBAY LADIES' BRANCH.

THE annual general meeting of this Association was held at Government House on Wednesday, 8th February, at 5-30 p. m., when there were present:—H. E. Lady, Sandhurst, President, in the chair; Members—Mrs. Candy Mrs. Childe, Miss Maneckjee Cursetjee, Miss A. Benson, M. D., Mrs. Badrudin Tyebji, Mrs. Gostling, Lady J. C. Jehangir, Mrs. Moolji Barbhaya, Mrs. Solomon Sassoon, Mrs. M. C. Ranade, Mrs. Jeejeebhoy F. Petit, Lady Jamsetjee Jejeebhoy, Mrs. D. J. Parakh, Mrs. Bowen, Mrs. Hajee Mahomed, Mrs. Pheroze H. Dastoor, Mrs. Wilson, Miss F. M. Banaji, Mrs. Kalabhai Laloobhai, Mrs. Grattan Geary, Mrs. Pestonjee Hormusjee, Mrs. Rustomjee N. B. Jeejeebhoy, Mrs. MacMillan, Mrs. A. Turner, Mrs. Runchordas Tribhowandas, Mrs. Tulsidas L. Mody, Miss Abbott, Mrs. Cursetjee J. Wadia, and Miss B. Tyabjee.

The following resolution was unanimously passed:—Proposed by Mrs. Gostling, seconded by Mrs. D. J. Parakh—That the revised rules now submitted be adopted and confirmed as the rules of the Bombay Ladies' Branch of the National Indian Association, also that they be printed for circulation.

H. E. Lady Sandhurst then read the report and accounts a summary of which is appended:—

During the year our Association has held four Committee meetings, other business having been done by circulars. The first Committee meeting took place at Mrs. Strachey's bungalow on January 29th, when Miss Benson occupied the chair. It was resolved that more useful work could be done by the Ladies' Branch if it again became independent of the General Branch, as before the amalgamation of 1894. To discuss this resolution a meeting of the General Committee and the Ladies' Sub-Committee met at Government House on February 3rd, her Excellency Lady Sandhurst presiding. The resolution was carried unanimously, and from this date the Ladies' Branch became self-existing.

The annual general meeting of the entire Bombay Branch of the National Indian Association took place at Government House on March 3rd. Her Excellency Lady Sandhurst having signified her intention to sever her connection with the General Branch, the following Committee was there and then elected for the Ladies' Branch:—President—Her Excellency Lady Sandhurst;

Vice-Presidents—Mrs. Pechey Phipson and Mrs. Candy; Honorary Secretaries—Miss M. Cursetjee and an English lady to be elected hereafter; Lecture Secretary—Mrs. Gostling; Honorary Treasurer—Mrs. Badrudin Tyebji; Members—Mrs. Grattan Geary, Mrs. Rustam Cama, Mrs. Solomon Sassoon, Mrs. Strachey, Mrs. Ranade, Miss Benson, M. D., Mrs. Jeejeebhoy Petit, Lady Jehangir, and Mrs. Mooljee Barbhaya; Honorary Work Guild Secretaries—Mrs. Stanley Smith and Mrs. Parakh.

The Second Committee meeting took place on June 25th, again at Mrs. Strachey's bungalow. Mrs. Gostling was requested to organize a series of lectures in connection with the Association. Miss Maneckjee Cursetjee was requested to suggest to the Director of Public Instruction that the scholarships given by the Ladies' Branch be so altered that native pupils should compete in English instead of in the Vernacular, and European and Eurasian girls should compete in the Vernacular. The desired alterations in our scholarships have come into effect from the beginning of the current year, with the following reservations:—Two scholarships of Rs. 3 each will be reserved, in addition to the Mary Carpenter Scholarships, for the Vernacular; two of Rs. 6 each will be competed for in the Anglo-Varnacular Standards V. and VI., and one of Rs. 10 will be continued to Europeans and Eurasians in the Vernacular. The total of our scholarships will thus amount to Rs. 336, to which Mr. Prior desired us to add Rs. 9 for sundry expenses, thus bringing the total to Rs. 345.

The third Committee meeting took place on August 24th at Mrs. Strachey's bungalow, and the fourth at Government House on December 22nd, H. E. Lady Sandhurst presiding. The greater part of the business done was in connection with the revision of the rules, organization of the *purdah* parties, lectures, etc. Miss Manning, the Honorary Secretary of the Central London Branch of the National Indian Association, was present at this meeting. Her first proposition was to organise a Teachers' Guild for female teachers of schools in Bombay. In conjunction with this proposition, Lady Sandhurst desired the Secretaries to ask the principal female teachers of schools in Bombay to meet on a day to be appointed later at Government House in order to express their views on the subject. Proposition 2nd—That a library, be formed for female teachers, to assist which the Home Committee would gladly send books. Proposition 3rd—That a school be started for Hindoo girls. This was unanimously considered to be too large an undertaking for the Ladies' Branch.

Consequent to her departure from Bombay, Mrs. Strachey's resignation was accepted with regret by the Committee, and Mrs. Walter-Hughes was elected in her place. Several social afternoon parties were given during the year, at one of which, kindly given by H. E. Lady Sandhurst at Government House, Miss Manning was present. As usual the work done by the Guild continues to make our Ladies' Branch proud of its connection with it. On Mrs. Dimmock's departure for England, Mrs. Stanley Smith took up the office of Honorary Treasurer and Secretary, and during her absence the work was ably carried on by Mrs. Barlow, Mrs. Parakh rendering her valuable assistance to all three ladies. Mrs. Childe succeeded Mrs. Dimmock on her departure for England as co-Secretary with Miss M. Cursetjee, and has held the office since July, 1898. Our cordial thanks are due to Mr. D. R. Chichgar for the accounts (which show a balance in our favour of Rs. 2,321-4-2), and to Sir George Cotton, who audited them for us.

Proposed by Mrs. Candy, seconded by Mrs. M. B. Barbhaya, and unanimously passed—That the report and audited accounts now submitted to the meeting be adopted and confirmed as the report and account of the Bombay Ladies' Branch of the National Indian Association from January to December, 1898.

H. E. Lady Sandhurst announced the retirement of the Executive Committee of 1898. Thereupon the following resolution was unanimously passed:—Proposed by Mrs. Rustomjee H. Jeejeebboy, and seconded by Mrs. P.R. Wilson —That this meeting offer its best thanks to the Executive Committee of the Ladies' Branch of the National Indian Association for their management of the affairs during the past year. Mrs. Dimmock and Miss A. Benson were appointed Scrutineers to reckon the written votes sent by the members for the election of the new Executive Committee. The result was the same Committee as last year was elected with three additional members, *viz.*, Mrs. Macarthur, Mrs. Rustam Cama, and Mrs. Rustomjee E. B. Jeejeebhoy.

The following resolution was unanimously passed:—Proposed by Mrs. Bowen, seconded by Mrs. Furdoonjee M. Banajee—That a hearty vote of thanks be tendered to

Mr. D. R. Chichgar for having consented to be the Honorary Treasurer of this Association, and for the accounts rendered by him ; also to Sir George Cotton for kindly auditing the same.

H. E. Lady Sandhurst announced that Mrs. Muir Mackenzie, Mrs. Ruttonjee J. Tata, and Mrs. Currie were elected members, and that Mrs. Daji Abajee Khare had rejoined the Association.

Mrs. Childe proposed, and Mrs. Jeejeebhoy Petit seconded—That a vote of thanks be offered to H. E. Lady Sandhurst for presiding on this occasion, and this was adopted.—*Times of India.*

Public Instruction in Madras,

1897-1898.

As the resolution of Government states, the Department under Dr. Duncan's able supervision has had a somewhat uneventful year. Adverse conditions, famine, scarcity and financial depression have necessarily told against any marked progress, and in some respects there has been actual retrogression. Perhaps the Secretary to Government takes rather a needlessly gloomy view of the period of work under consideration. On the total results, extension (though on the wrong side of the decimal point in its numerical expression) is revealed to the amount of ·36 per cent. in schools and ·69 per cent. in scholars. And in one respect at least the Benighted Presidency (as persons not themselves remarkable for any degree of intellectucal illumination are too, prone to stigmatize it) leads the way, and that too, one in which we might have expected the obscuring influences of its alleged darkness to have cut off all the light of progress; we mean female education. Taking the total population of the Presidency of school age, Madras has 4·3 per cent. girls at school, whereas Bombay has but 4·2 and Bengal lags last with a pitiful 2 per cent. The Director is, however, obliged to record it as his sad conviction that the advance is painfully slow and that "notwithstanding all the platform oratory on the advantages of female education a re-action has in many quarters set in against it." The Madras Brahman appears to evince an obstinate dislike to the education of his womankind, whether the education be primary or secondary. Not a single Brahman girl is to be found in the upper secondary stage, and the increase in the lower stage was exactly *one*, no more. The Director's own opinions on the teaching of girls are sounded with no uncertain note. Aware probably that the Brahmanic aversion to female education is based not so much on sheer prejudice as on sheer jealousy and an uncomfortable suspicion that education will reveal to sisters and wife the earthy composition of the male they have been taught to revere as almost divine, the Director presses for similar courses of training for both boys and girls. Waxing Platonic he lays down the axiom that the mental faculties of the sexes are fundamentally the same, and that hence the curiculum suitable for the one sex cannot be very unsuitable for the other. Even if a girl's future is to be narrowed within the daily round of a few domestic interests, that is all the stronger argument for placing her education on a broad and liberal basis, so that she may withstand the evil effects of the narrowing influences to which she will be subject. A wide and vigourous intelligence, strong and generous sympathies thus fostered or implanted should make her the truer wife and the better mother. To Europeans the argument seems unanswerable: Asiatics will agree—and continue to cling to the old and bad ways. Of course, no one desires exact identity in the curicula for boys and girls, necessary discrimination in regard to pursuits and accomplishments must be made, but girls of strong character and high talent should have at least as invigorating an education as their brothers.

Respecting the education of its boys Madras falls behind Bombay and Bengal in quantity of scholars if not in quality, and taking all the scholars of both sexes together we find that Bombay heads the list, with Madras second and Bengal third. Of the boys at school or college in Madras the highest percentages in the upper branches of education fall to the Brahmans, the lowest to the Europeans and Mahomedans. In the lower branches the percentage of non-caste Hindus is far in excess of that of any other class. The latter seem, however, to have receded from the higher position of last year in secondary and collegiate education. The district where school children are most in evidence is that of Madras itself, where of the population of school going age *one in two* attends some sort of school. This is a very striking figure, but naturally is not maintained in the other districts, of which, however, three have 1 in 3 and four 1 in 4. The cost per head of population is 36 pies as against 52 in Bombay.

Discussing higher education in this Presidency, Dr. Duncan points out some interesting facts and draws deductions from them. In English, Madras would appear to have a very decided supremacy over both Bengal and Bombay. 20 per cent. of its scholars in public institutions learn English as against 10 per cent. in Bengal and 6 in Bombay. Personally we are not sure that this is altogether a matter for congratulation. First and foremost what India wants is a sound system of primary education, next to that a comprehensive, continuous and discriminating scheme of technical education. An "English literary training" is not only not necessary, but not even desirable for the very large majority of Indian youths. And indifferent English, a mere smattering of the language with ill-digested fragments of its literature crammed by rote, is worse than undesirable; it is positively noxious. Nor is the Madras standard of knowledge in the branch really high. In the M. A. during the past 2 years the candidates who took up English failed "totally," and the majority of the F.A. students are unable to understand lectures addressed to them in that language. A member of the Law College Staff complains of the gross mistakes in spelling, grammar and idiom made by *graduates* who enter for the law course. In Bombay such defects are not unknown, but on the above facts it can be safely said that our standard of attainment is higher than that of Madras.

A more striking feature which the Director comments on at some length is the remarkable advance made on the non-literary or scientific side of higher education. Mathematics, physics, natural philosophy appear now-a-days to be the subjects most attractive to the student. One reason, the Director thinks, is that there is a growing demand for non-literary or scientific graduates in all the Departments of the public service, another is that in after life those who have qualified in some "industrial" or "technical" pursuit have a decided advantage over those who have taken only the Arts course. Madras may therefore in this matter plume herself on her superiority to other Presidencies, and the Director hopes that she will long continue to lead the way. It does not seem to have occurred to the Director or to the reviewer of his report to connect this utilitarian tendency with the evident decline in the quality of English studies and in history and moral science. The latter, we believe, are classed by some quasi-educational authorities as useless, or at least non-useful subjects, and we shrewdly suspect that Dr. Duncan is not much concerned at the little interest attached to them. He certainly does not go out of his way to deplore the abject performances of candidates in these subjects at the University examinations.

There is a good deal in the report bearing on technical instruction, for which more elaborate provision seems to be made in Madras than in Bombay. Examinations in an extraordinary variety of subjects are held throughout the presidency, *e. g.*, in all kinds of engineering, in agriculture and veterinary science, commerce, music, jewellers, work, printing, leather work, carriage building, weaving and lace-making, porcelain manufacture, dress-making, cookery, and bread-making (does the Department consider the art of making bread external to that of cookery in general?). It is true that candidates are not always forthcoming in all these arts, but that apparently is a detail. Nor is instruction in each art always or everywhere to be obtained. *Non cuivis contingit adire corinthum* and some who would prefer to make bread have to be content with a stone and turn out pottery, while others who are fain to build carriages are reduced to shoeing horses, but this is only part of the irony of fate and is not to be put to the account of a paternal department, which is anxious to examine, at any rate, in anything. In the various art or industrial schools, governmental or otherwise, scattered through the Presidency, we find the number of students has increased except among Europeans and Brahmans: most notable is the increase among Mahomedans. On the general topic of technical education the Director points out very sensibly the evil of disjoining technical from general education. The interests of the latter must not be sacrified upon the altar of the former, which is in danger of becoming a mere fetish with many would-be educationalists. Students from the technical or commercial classes have not been exactly scrambled for by the great employers of labour in Madras; and, in fact, most commercial men there, as elsewhere, prefer to train their own assistants. The reason of this reluctance is to be found in the want of sound general training which so many of these specially trained men reveal. Nowhere is this more marked than in the commercial classes. Lastly, the introduction of the working of aluminium (which we had fondly believed to be a metal until we read Dr. Duncan's description of it as an industry!) has opened up a new field of labour for the Indian artisan, and for this the Government School of Art deserves all the thanks that are due to such an achievement.

One section of special interest still remains to be noticed, viz., that on the education of deaf-mutes and of the blind. Here, indeed, Madras seems really ahead of ourselves. There are 3 schools for blind children (2 for boys and 1 for girls) and one for the deaf and dumb. In the former, which are under the management of the Sarah Tucker College, Palamcotta, embossed books are used, but otherwise the teaching is much on ordinary lines, since the process of mental development in the blind is not essentially different from that of those who can see. More difficulty seems to be experienced with deaf mutes. The letters of the alphabet are taught to these by finger-language, each letter being afterwards pointed out by the pupil who is also required to make the sign himself. For small words of common occurrence, special signs are used suggestive of the meaning. (The last remark requires explanation: what sign could be said of itself to indicate the meaning of such 'a word as *if*?) In dictation the teacher makes finger-signs, and the children write the letters on slates. Counting is taught by means of objects and fingers. Special 'readers' are prepared, the first of which contains 300 pictures of nouns, each of which is further denoted by a special sign; the second deals with verbs by the same method; while the third has simple sentences constructed on the above bases. The mistress and her her two Tamil teachers are not, however, limited to signs and fingers merely. They can literally say anything and be understood by their pupils who watch the motion of their lips, and even succeed, in forming words with their own. These schools are the produce of private enterprise, and so impressed is the Director with their good work that he is urging the Local Boards to open institutions on similar lines.

Educational Notes.

It is interesting to notice that in the Police Report for Bombay Presidency, just issued, the question is raised of special police schools. Our Commissioner is good enough to allow that, "*caeteries paribus*, an educated man will be better than a half-educated one." It is curious that he did not say " than an *uneducated* one": had he his doubts as to the last? The type of school, however, proposed is purely professional: Munshis are to be primed in the knowledge of codes, forms, and such like engines of torture, and the proposer goes on to state unreservedly that " activity, detective ability, and honesty " are not to be imported by education. This is just one of those half-truths that are so dangerous: in the mouth of an unsympathetic and prejudiced person such a statement amounts to an indictment of education, and (which is worse) is understood and made use of as such by ignorant or interested inferiors.

We have called it 'a half-truth,' for such it is, 'Education' (save the mark!) of the kind suggested certainly is no guarantee of any of the qualities specified. How should it be? But, then—except, perhaps to the dry light of the untempered bureaucratic intellect—a knowledge of forms and codes is not education, is not even educative. It is but a whitened sepulchre, fair without, while inside it is full of rottenness and the indecent skeletons of well-dried facts. Or rather it is a valley of Hinnon, piled with the bones of dead ideas which lie waiting for an inspiration that never comes. But education of the true kind, the training of all the faculties of man in their degree, how should this not lead to the " activity, detective ability, and honesty" required? Does any one seriously mean to say, that of the educated Indians he knows none are the better intellectually and morally for their education? Where do fatuousness, violence, corruption, and immorality flourish in all their ancient rankness, except among those classes and in those places where education is not? Vice concealed is bad, but it is not so bad as vice naked and unashamed, flaunting her baneful charms on the house-top and triumphing alike in palace and in market-place.

We have 'broken out' perhaps in rather an unexpected place, but we have indulged ourselves in this out-burst deliberately. When continual sneers and reproaches from all quarters, or, worst of all, the faint praise of cynical civility, resound in his ears, the Educationalist may be pardoned if he 'lets off steam' occasionally. Even at the risk of platitudinizing we record it, then, as a deliberate belief that a training which does its best to elevate, first and foremost, the moral sense, and, secondly, the intelligence, and, thirdly, the physical capacities of any pupils—even policemen, cannot fail to produce the desired result. Give the police a school where training of this kind can be had, and there will be less reason to complain of their present obvious defects. If the policeman is a bad detective, it is because he is unintelligent, and his reasoning faculty is dormant or (as is not unusual) perverted. He is dishonest perhaps, but no rational course has been adopted to make him honest, and we cannot consider cutting his pay a step in that direction. With intelligence and honesty, activity will follow almost naturally, and will be secured by rational physical training, which, it may be remarked is not quite synonymous with "drill."

No doubt, much of the education thus sketched should be acquired in childhood through the existing 'primary' schools. But, unfortunately, the scope and number of these institutions is limited, and the backward races, from which many of the police are drawn, hardly come within their influence. And, still more unfortunately, as a moral factor in education, primary schools, owing to the absence of the necessary qualifications in the teachers, have not been a striking success. With the increase of properly-trained and qualified masters, their utility in this direction will become more marked. But none the less the supplementing and continuing of their beneficial effects by special schools or classes, designed for particular professions and types, is not only desirable, but necessary.

From policemen to convicts is a not unnatural transition. In England, and still more, in America, much is done to ameliorate the intellectual condition of prisoners in gaol, in the hope of influencing for the better, through this means, their moral and religious sensibilities. A similar system should not be impossible in India. Books (not, be it understood, of the namby-pamby or directly 'improving' order) for those who can read them, schools for the illiterate, and addresses on the simple universal rules of good life, delivered by outside persons of incontestably high character, would surely not be more destructive of discipline than are squatting idly in the shade and the meditation of fresh iniquities, at present the sole occupations of such leisure as is allowed.

It is true that the desire for amelioration of intellectual conditions in the lower strata of society is sometimes apt to become ridiculous, but that is generally the fault of the would-be ameliorators. A case in point is reported by our Oxford correspondent, who writes of a brand-new guild or league or lodge (we are not certain of the exact title by which this latest company of educational lunatics designates itself), the object of which is to introduce the Ruskinian culture into culinary circles and to kindle a passion for tall thinking and lean living among the be-wigged and be-powdered denizens of the 'servants hall.' In other words, it is proposed to institute lectures on art, philosophy, and history for the benefit of cooks and footmen in the aristocratic quarter of the capital. Their employers are to be prevailed on to dispense with their services for a month or so in a year, during which they (the cooks and footmen) will be sent 'up' to Oxford to imbibe the spirit of its culture in their brief period of residence. The heads of the University are said to regard the scheme without enthusiasm. We do not wonder—but what then of the poor employers?

The folly of 'movements' such as this, which substitutes a fantastic miscellany of partially comprehended and wholly inappropriate learning for sound technical instruction of the special sort required, is to blame for much of the discredit that lights upon education in general. The same spirit is only too much in evidence here in India. In Assam boys are learning to prefer the position of an underpaid clerk to the natural succession to their fathers' agricultural labour, and the result is that persons whose opinions are of value, already think that the day is not far distant when the Assamese peasant proprietor will be as much a thing of the past as—say, the 'sun-myth' theory. In Bengal we have the germs of a literary proletariat, and the compiler of the report on publications issued in that province enlarges with strange complacency upon the rise of a journalistic class the very dialect of which is mongrel and its means of subsistence *a vanishing point.*

The fact is that India and the world at large are likely to suffer in the immediate future from a plethora of 'clerks,' in the old sense of the word, *viz.*, persons who can read and write passing well, but can turn their hand to little else. And yet the labour of the world, the digging, ploughing and sowing must go on, houses must be built and garments made, and in these occupations for men of self-reliance there will be found ample means of subsistence. Given a sound and wide-spread system of primary education, the next step is to provide an equally sound but discriminating system of technical education. And just as clerical places are reserved in Government service for candidates of clerical literary merit, so more generous prospects of advance may be opened in the technical branches of the administration. But Government cannot and ought not to do everything for the people : let it give a fair start, and, above all, foster a spirit of self-help and enterprise. The most promising signs of such a spirit's existence are evinced in the proposals of Mr. Tata and Mr. Talati, which are now before the public.

Taken together, and pruned of their extravagances and excrescences, such schemes would provide real education (not merely technical instruction) for the middle classes and would serve as very desirable complements to a sound primary system of education. They are not to be regarded as antagonistic to 'literary culture,' but as branches parallel with it, and to a certain extent assuming and involving it. But, in their inception at any rate, these schemes will not touch the lower classes, the manual workers of the village and the country, and what is still to be desired is the institution of systematized and continuous technical training (combined with 'primary' literary instruction) of a kind to more directly benefit these.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
19th September 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. GILES,
Director of Public Instruction.

The accompanying Government Resolution, Educational Department, No. 24, dated the 10th instant, with accompaniment, is published for the information and guidance of Educational officers.

Poona,
4th February 1899.

E. GILES,
Director of Public Instruction.

Educational Conferences.—

Report of the Conference of Educational Officers held at Poona on the 26th September 1898 and four following days on the revision of Training College Codes and the scheme for training Teachers in Secondary Schools.

EDUCATIONAL DEPARTMENT.

No. 24.

Bombay Castle, 10th January 1899.

Letter from the Director of Public Instruction, No. 5450, dated the 18th November 1898:—

"With reference to Government Resolution No. 804 of July 11th, 1898, I have the honour to state that the proposed Conference of Educational Inspectors and Principals, Training Colleges, was held at Poona on the 26th September and four following days. The following gentlemen attended the Conference :—

Director of Public Instruction—*President.*
Educational Inspector, Central Division.
Do. do. Northern do.
Do. do. Southern do.
Principal, Training College, Poona.
Do. do. do. Ahmedabad.
Do. do. do. Dharwar.

Mr. J. G. Covernton, now Educational Inspector, Sind, also, at my invitation, attended the Conference for the first two days.

"2. The principal questions discussed at the Conference were the details of the scheme for training teachers in Secondary Schools, and the revision of the Training College Codes. As regards the latter, the Codes of the three Presidency Divisions have now been assimilated and placed on a common basis, and copies of them will be sent to Government as directed in Government Resolution No. 1307 of September 1st, 1897, as soon as they issue from the Press. The Inspectors of the several Divisions, except Sind, for which subsequent arrangements will be made, are now passing the Codes through the Press.

"3. The scheme in connection with the training of teachers in Secondary Schools has been carefully considered by the Conference and afterwards placed before the Teachers' Association in Bombay, who have expressed their cordial approval of it. I now forward it to Government for approval, and request that if it is approved orders may issue for the adoption of the scheme in 1899 and that the rules which regulate it may be published as Provisional Rules.

"4. In asking Government to accept this scheme, I would request a reference to paragraph 15 of this office No. 5594 of December 8th, 1896, which is printed as an accompaniment to Government Resolution No. 1307 of 1st September 1897. In that paragraph I gave full reasons for the proposals which I made, and my proposals were fully accepted by Government. The scheme as now detailed is in direct accordance with those proposals, and I need not, therefore, trouble Government with lengthy remarks on it.

"5. I would, however, observe that the scheme as now drawn up is based mainly upon the draft scheme prepared by Mr. Kirkham before he left India (*vide* paragraph 2 of this office No. 1028 of May 25th, 1898). Mr. Kirkham's scheme was rather larger than the present one, and was, in the opinion of the Conference, too elaborate for immediate adoption. A simpler scheme appeared to us to be more suitable, but there is nothing in the present scheme which is not contained in Mr. Kirkham's scheme, and Government may, therefore, consider it as a scheme inspired by an Educational Officer of great experience and unique pedagogic knowledge.

"6. It will be seen that the scheme is compulsory for probationery teachers in Government Institutions, and open to the teachers of aided and unaided Institutions which are recognised by Government. A small fee has been charged to meet the possible expenses of the examination in printing and stationery, and a certificate of fitness to appear is required from the Head Master or Manager of any school in which the candidate is employed.

"7. The rule for the conduct of the examination in Part II. was very carefully considered, and it was decided that it would be most convenient to leave to the Educational Inspector great liberty of option as to the time and place at which he would hold the examination. Subsequent experience will show whether this rule requires modification or not.

"8. Finally, the Council of the Teachers' Association of Bombay, which represents the best schools of the secondary system of that city, have given their opinion on the scheme in the following words:—

> 'The Council cordially approves of the proposed examination, as it is calculated to encourage the study of the theory and practice of education by teachers and thus to help towards greater efficiency in the work of schools.
>
> 'The subjects laid down for study appear to the Council to be adequate for the present; the Council considers the books prescribed to be very suitable.
>
> 'The Council, in returning the draft scheme with the above observations, desires to thank you for having given it an opportunity, of expressing its views regarding a subject of such educational importance.'

"The Council suggested one or two amendments in the scheme which have been adopted, and it, therefore, comes before Government after careful consideration by the best official and non-official Educational authorities of the Presidency."

RESOLUTION.—The receipt of copies of the Codes with a brief explanation of the changes made in them will be awaited.

2. The scheme for awarding Secondary Teacher's Certificate is approved, and should come into force in 1899. The rules* should be published in the *Bombay Government Gazette* as provisional rules, and the Director of Public Instruction should be asked to submit a brief annual report for three or four years, showing how the scheme works. He should also be asked to report whether the question of issuing circulars or adding foot-notes to the Grant-in-aid Code and standards, with a view to give publicity to certain matters as regards which incorrect ideas prevail, was considered at the Conference, and, if so, to forward copies of the circulars or foot-notes decided upon.

R. B. STEWART,
Acting Secretary to Government.

To
THE DIRECTOR OF PUBLIC INSTRUCTION.

Accompaniment to Government Resolution No. 24, *dated the* 10*th January* 1899.

NOTIFICATION.

No. 25 OF 1899.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 10*th January* 1899.

SECONDARY TEACHER'S CERTIFICATE EXAMINATION.

The following Provisional Rules for the conduct of the examination for the award of certificates to teachers in Secondary Schools in the Presidency of Bombay are published for general information. They will come into force from the current year:—

Annual Examination.

1. The Educational Department of Government will hold once a year an examination for the grant of Secondary Teacher's Certificates. The examination will be held at Poona (or Bombay), Ahmedabad, Dharwar, and Karachi, and will be conducted by the Educational Inspector of the Division,

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* Printed as an accompaniment to this Resolution.

assisted by assessors to be nominated by him, and approved by the Director of Public Instruction.

Dates and Fees.

2. The examination will be usually held in the beginning of August, and each candidate shall pay a fee of Rs. 5 to the Educational Inspector before the examination begins. Applications for admission to the examination must be addressed to the Inspector in the form appended, and must reach him not later than the 1st July.

Who may be candidates.

3. The examination will be open to all permanent or probationary teachers,*male or female, in recognised Secondary Schools, whether Government, aided or unaided; European, English-teaching or Anglo-Vernacular. No candidate shall be admitted to the examination unless he has passed the University School Final Examination, or the Entrance Examination at a University, has served continuously as a teacher for at least one year, and produces the requisite certificate as to character and capacity from the Head of the Institution in which he is serving.

Subjects of Examination.

4. The examination shall be in the theory and practice of teaching, and shall be divided into two parts, *viz.*:—

Part I.—Theory of teaching.

Part II.—Practice in teaching and class management.

PART I.

Books and Marks.

5. The following are the books prescribed for the examination:—

(1) "Lectures on Teaching."—Sir Joseph Fitch, M.A.
(2) A New Manual of Method by Garlic.
(3) On teaching, its ends and means.—Calderwood.

Two papers will be set in the books read as follows:—

	Marks.
1st Paper Fitch's Lectures	100
2nd Paper (two remaining books)	100
Total...	200

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*N. B.—The service of a Dakshina Fellow in a College shall be regarded as qualifying for this examination.

N.B.—For a period of three years after the publication of these rules the qualifications of passing a University Examination shall be dispensed with in the case of any teacher who shall have served in a recognised Secondary School for two years continuously, and who shall produce a certificate to that effect from the Head of the School in which he has so served.

PART II.

Practical skill in teaching and class management :—

	Marks.
(*a*) Accuracy and quality of matter with reference to class taught	50
(*b*) Power of clear exposition and skill in questioning	50
(*c*) Language, including articulation, pronunciation and suitability to class	50
(*d*) Management of boys and power of maintaining discipline	50
Total...	200
Grand Total...	400

Mode of Examination.

6. The question papers in Part I. shall be printed, and shall be the same for all Divisions of the Presidency.

Examination in Practical Skill.

The examination in Part II. shall be held by the Inspector, as a general rule, when he officially inspects the school in which the candidate is employed, but may be held by him on any day and at any school he may appoint for the purpose. No candidate will be examined in Part II. until he has passed in Part I.

Certificates.

7. In order to pass the examination a candidate must obtain not less than 50 per cent. of the total marks assigned to each Part. A certificate in the form appended will be issued to each candidate who passes, and a list of the names with the total marks gained will be published annually in the *Government Gazette*.

No probationary teacher in Government Institutions will hereafter be confirmed unless he has obtained a certificate under these rules.

Advantages.

8. The possession of the Departmental Secondary Teacher's Certificate will be recorded in all Departmental Directories and will be taken into consideration in all questions of promotion. The number of teachers who hold this certificate will be considered, in deciding on the adequacy and competency of school staffs in aided schools under the rules of the Grant-in-aid Code.

A.

Form of Application.

To

The Educational Inspector, Division.

SIR,

I request that I may be admitted to the next examination for the Secondary Teacher's Certificate.

I am, Sir,
Your obedient Servant,

(Name in full)____________________
(Appointment)____________________
(University standing, with date)________________

To be forwarded through the Head Master.

B.

Certificate to be given by the Head of the Institution under Rule 3.

I hereby certify that A. B. has been a teacher in this Institution during the last 12 months, and that I consider $\frac{\text{him}}{\text{her}}$ to be a person of good character, capable of maintaining discipline in a class, and in every way fit to appear at the examination for a Secondary Teacher's Certificate.

C.

Form of Certificate.

SECONDARY TEACHER'S CERTIFICATE OF THE BOMBAY EDUCATIONAL DEPARTMENT.

Name in full.	MARKS OBTAINED.				
	Part I.			Part II.	TOTAL.
	First paper.	Second paper.	Total Part I.		
	100	100	200	200	400

Passed in the________Division.

____

Educational Inspector, Division.

Place____________

____

Director of Public Instruction.

Date____________

The accompanying Government Resolution, Educational Department, No. 1834, dated the 6th December 1897, with accompaniments, is published for the information and guidance of Educational Officers.

Poona, *4th February* 1899. E. GILES, Director of Public Instruction.

Building Grants.—
Deeds
Procedure to be followed in preparing building grant deeds.

EDUCATIONAL DEPARTMENT.

No. 1834.

Bombay Castle, 6th December 1897.

Memorandum from the Revenue Department of the Secretariat, No. 4533, dated the 16th June 1897.

Transferring for consideration in the first instance one No. R.—3778, dated the 8th idem, from the Commissioner, C. D., who submits for orders a letter No. 5198, dated the 2nd idem, from the Collector of Khándesh, who states that the preparation of trust deeds gives trouble out of all proportion to their importance; and makes certain suggestions by which it may be obviated.

RESOLUTION.—Government are aware that in the past much difficulty has been experienced by their officers as regards the preparation of trust deeds for building grants. On several occasions proposals for doing away with the necessity for these deeds in certain cases have been considered by Government, and the reasons which have induced Government in past, acting on the advice of their law officers, to reject these proposals, still exist. Government have been advised that some kind of deed, even if only as a clear record of the transaction, would be necessary in any case, and that the various expedients suggested from time to time would not have the effect of doing away with the need for a deed, but merely of shortening it to an extent dependent on the more or less comprehensive nature of the special legislation undertaken, or of the special or general contract which might be made a substitute for legislation. Moreover in the classes of cases which will probably be found to be far more common than all the others combined, viz., cases in which Government give a Local Board not only a grant of money, but also a site for their school, there should be no reason for either delay or difficulty if the proper procedure is clearly understood. Difficulty and delay are ordinarily due to inquiries more or less complicated, about title to a site and authority to execute a deed; but these enquiries are unnecessary in cases in which the site is given by Government and the deed is executed by a Local Board.

2. When a Local Board has obtained from Government a site for a school, an application can at once be submitted to Government through the Director of Public Instruction for a building grant based on the estimate of cost. When this is sanctioned the Local Board should fill in the blank spaces in Form II (which can be obtained by the Collector, from the Central Press) appended to this Resolution. The schedule should be verified by the Collector and the deed should then be forwarded through the Educational authorities. If reasonable care is taken the Remembrancer of Legal Affairs will have no difficulty whatever and will be able to advise Government without delay that the document is in order. (It may be mentioned here that the Local Board should obtain the sanction of the Commissioner to convey the property to the Secretary of State.) When the draft has been approved by Government an engrossment should be prepared on paper of suitable size and quality, which should be submitted after execution by representatives of the Local Board in the presence of two witnesses, and after stamps of the requisite value have been affixed.

3. The procedure will be exactly the same if a Municipality instead of a Local Board has obtained a site from Government and desires a building grant.

4. More difficulty will be experienced when a grant of money only is required from Government by a Local Board or Municipality. In this case before an application can be made to Government for a grant Government require to be satisfied (the authority to execute the trust deed being clear) that the title of the Local Board or Municipality to the land on which the school is to be erected is valid. The Local body when applying for a grant must submit such evidence as is available (*vide* paragraph 9 (1) below) regarding its title and Government will not promise a grant until this evidence has been pronounced satisfactory by its legal advisers. The subsequent procedure, after the grant has been promised, will be the same as that shown in paragraph 2 above, except that Form I appended to this Resolution must be substituted for Form II. The Local body will no doubt experience difficulty in some cases in producing satisfactory evidence of its title, but this is a difficulty that

could not be avoided by legislation or by any of the expedients that have hitherto been suggested to Government officers who have desired to see the preparation of trust deeds rendered unnecessary.

5. The next class of cases in which Local Boards and Municipalities are concerned is that in which a portion of the site is granted by Government, and a portion is acquired privately. Here also—the authority to execute the deed being clear—the first thing to be done is to produce evidence of title to the land acquired privately and to submit it to Government when applying for a building grant. The subsequent procedure will be the same as that already indicated except that the form to be used is No. III, but there will probably be some difficulty (and hence some delay) in correctly filling up the blanks in the deed as regards the land acquired privately.

6. The only other class of cases in which Local Boards and Municipalities are concerned is that in which the site is granted by private persons on certain conditions. Here also, as in the previous case, evidence of title must accompany the application for a building grant. The other procedure will be the same as that indicated above except that the form to be used should be No. IV. Here too there may be some difficulty (and hence some delay) in correctly filling up the form as regards the land granted conditionally by private persons.

7. There are two other classes of cases in which deeds for building grants have to be prepared, viz. (1) those in which a grant of money only is made to a private person or body, (2) those in which a grant of money and also a site is made to a private person or body. The forms to be used will be No. I A and No. II A in these two cases, respectively. As regards land other than that granted specially by Government for the purpose, evidence of title must accompany the application for a grant, and this must also be accompanied by evidence of authority to execute a deed, if the applicant is merely the representative of a body or association in whom the school will vest.

8. In case in which grants were promised before the issue of Governmet Resolution No. 1771 dated 22nd September 1896, evidence of title and of authority to execute a deed—when such evidence is necessary—should be submitted when the deed is forwarded for the approval of Government. Unless such evidence is complete and satis-

factory, some delay before the deed is approved will be unavoidable.

9. Various orders on the subject of trust deeds for building grants have been issued at different times in the past, but it should be understood that any which conflict with the orders in this Resolution are cancelled by implication. A few orders which remain in force are mentioned below:—

(1) When evidence of title has to be submitted to Government careful inquiry should be made whether the document under which the land is held was duly registered, whether the vendor has had undisputed possession for twelve years, and whether there are any partners or others who could dispute his title (Government Resolution No. 1771, dated 22nd September 1896).

(2) English translations of vernacular documents of title should be furnished (Government Resolution No. 1372, dated 20th July 1896).

(3) The stamp duty on a building grant deed is the duty payable on a bond for a like amount or Rs. 15, whichever may be the less (Government Resolutions No. 1126, dated 10th June 1895, and No. 1348, dated 13th July 1895).

(4) A question having been raised whether a deed could be registered unless all the persons except exempted parties executing it were present in person or by authorized agent it was decided (Government Resolution No. 1852, dated 23rd September 1895) that "a deed can be registered, *quoad* executing parties who admit execution," but not *quoad* those who deny execution or are absent.

(5) When a sheet of plain paper is joined to paper which bears a stamp the two should be stitched or gummed together (Government Resolution No. 1740, dated 12th September 1896).

10. Six forms, copies of which can be obtained by District and Educational officers from the Government Central Press, are appended to this Resolution.

A. C. LOGAN,

Acting Secretary to Government.

FORM No. I.

Trust Deed under Grant-in-Aid Code. Form No. I (site not granted by Government).

THE SECRETARY OF STATE IN COUNCIL

TO

THIS INDENTURE made the day of 189 between the Municipality of / the District Local Board of incorporated under the Bombay District Municipal Acts of 1873 and 1884 / Bombay Local Boards Act, 1884, hereinafter called the said Municipality / Local Board of the one part and the Secretary of State for India in Council hereinafter called the Secretary of State of the other part :

WHEREAS the said Municipality / Local Board is possessed of and absolutely entitled in perpetuity free from incumbrances to the piece of land described in the Schedule hereto and intended to be hereby assured ;

AND WHEREAS the said Municipality / Local Board applied to the Secretary of State for a building grant-in-aid of Rs. for a School-house to be known as the School, and has satisfied the Director of Public Instruction, Bombay, that the building is intended for and will be devoted to educational purposes and in part to secular education, that the plans, estimates and specifications are satisfactory, that the title of the said Municipality / Local Board to the piece of land described in the Schedule hereto is good and in order and that the building constructed.

AND WHEREAS by the rules now in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of schools, it is provided (*inter alia*) that no portion of a building grant shall be paid to the Managers of a School unless and until they execute a trust deed as in the said rules provided ;

AND WHEREAS the said Secretary of State hath sanctioned a building-grant of Rs. to be paid as follows, in consideration of the said Municipality / Local Board executing to the said Secretary of State such conveyance or assurance as is hereinafter contained, which the said $\frac{\text{Municipality}}{\text{Local Board}}$ has agreed to do :

NOW THIS INDENTURE WITNESSETH that in consideration of the premises and of the sum of Rs. paid as aforesaid by the said Secretary of State to the said $\frac{\text{Municipality}}{\text{Local Board}}$ the said $\frac{\text{Municipality}}{\text{Local Board}}$, with the previous sanction of the Commissioner Division as required by $\frac{\text{Section 15 of the Bombay District Municipal Act Amendment Act, 1884}}{\text{Section 9 of the Bombay Local Boards Act, 1884}}$ which said sanction is recorded by the Commissioner Division's No. , dated the day of 189 , doth hereby grant, convey and assign unto the Secretary of State, his successors and assigns all that piece or parcel of land described in the Schedule hereto, together with all and singular the building and erections now being or which may hereafter be thereon, expressly including the said building to be erected as aforesaid and all rights, easements and appurtenances whatsoever usually held or occupied therewith or reputed to belong or be appurtenant thereto, and also all fittings and fixtures being in and belonging to or used or to be used for the said School and all the estate, right, title, interest, claim and demand of the said $\frac{\text{Municipality}}{\text{Local Board}}$ into and upon the said premises :

TO HOLD the said piece of land, chattels and effects and all other premises expresed to be hereby assured unto and to the use of the said Secretary of State, his successors in office and assigns, according to the nature and tenure thereof respectively.

And the said $\frac{\text{Municipality}}{\text{Local Board}}$ doth hereby for itself and its successors covenant that it has power to grant all the said premises to the said Secretary of State, his successors and assigns in manner aforesaid, free from incumbrances, and that the said $\frac{\text{Municipality}}{\text{Local Board}}$ and every person claiming through or in trust for the said $\frac{\text{Municipality}}{\text{Local Board}}$ will at all times, at the cost of the said $\frac{\text{Municipality}}{\text{Local Board}}$ execute and do all such assurances and things for the further or better assuring the said premises to the said Secretary of State, his successors and assigns as aforesaid, as shall be reasonably required.

And it is hereby declared and agreed that the said Secretary of State, his successors and assigns shall hold the said premises upon the trusts and to and for the intents and purposes following; that is to say, upon trust to permit the said $\frac{\text{Municipality}}{\text{Local Board}}$ to enter upon the said premises for the purposes and on the conditions following, *viz.*, that the said $\frac{\text{Municipality}}{\text{Local Board}}$ and its successors shall—

(1) construct within months from the date hereof buildings thereon according to the plans and specification approved of or as may be approved of by the Director of Public Instruction, Bombay, for and on behalf of the Secretary of State;

(2) maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said piece of land to the end that the same may be always efficient for use for the purposes of a School;

(3) pay all rates, charges, assessments and expenses leviable or chargeable in respect of the premises and buildings;

(4) use all the premises and buildings as and for the purposes of a public School, to be devoted wholly to education and, in part, to secular education;

(5) manage and conduct the said School in all respects in accordance with the rules and regulations for the time being in force of the Educational Department in Bombay;

(6) keep the said School at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department:

PROVIDED ALWAYS and it is hereby declared and agreed that in the event of default being made by the said $\frac{\text{Municipality}}{\text{Local Board}}$ in the performance of any of the conditions hereinbefore mentioned, the building-grant or so much of the same as shall not then have been made shall lapse and the aggregate amount of the building-grant and all building-grants from time to time advanced by Government for the School shall be repayable to Government.

And for the purposes of recovering any moneys so due to Government it shall be lawful for said Secretary of State, his successors or assigns to enter upon and take possession of the said premises and all buildings thereon and to sell and absolutely dispose of the said premises and buildings in such manner as he or they, in his or their absolute discretion, shall see fit, and apply the proceeds of such sale, after payment thereout of all costs and expenses attending the same, in or towards the recouping or re-imbursing to the said Secretary of State the moneys which may, as aforesaid, have become repayable or due to Government, and pay the surplus, if any, to the said $\frac{\text{Municipality}}{\text{Local Board}}$ or to such body or person whom the said Secretary of State, his successors or assigns may consider lawfully entitled thereto.

IN WITNESS WHEREOF *A. B.* the President of the said $\frac{\text{Municipality}}{\text{Local Board}}$ and *C. D.* and *E. F.* two other $\frac{\text{Commissioners}}{\text{Members}}$ of the said $\frac{\text{Municipality}}{\text{Local Board}}$ have hereunto set their hands and the common seal of the said $\frac{\text{Municipality}}{\text{Local Board}}$ and *G. H.* Esquire hath, by order of the Governor of Bombay in Council, set his hand and the seal of his office hereto, for and on behalf of the Secretary of State for India in Council.

THE SCHEDULE ABOVE REFERRED TO.

Description and boundaries of property :—

The piece or parcel of land measures in superficial area
square be the same a little more or
less situated in the $\frac{\text{town}}{\text{village}}$ of and bearing
Number in the Taluka of in the
District of and in the registration
sub-district of in the said District,
and measures from North to South feet
and from East to West feet, be the
same a little more or less, and is bounded as follows :—

on the North by______________________________

on the South by______________________________

on the East by______________________________

and, on the West by______________________________

Signed by ____________

____

in the presence of ________

____

Seal of
Office of
G. H.

Common
Seal.

(Signatures)

A. B. President,

C. D. } $\frac{\text{Commissioners}}{\text{Members}}$
E. F. }

} $\frac{\text{Municipality of}}{\text{District Local Board of}}$

G. H. Secretary to Government.

FORM No. II.

Trust-deed under Grant-in-aid Code. Form No. 2 (site granted by Government).

THE SECRETARY OF STATE IN COUNCIL

TO

____

THIS INDENTURE made the   day of   189   between the $\frac{\text{District Local Board of}}{\text{Municipality of}}$ incorporated under the $\frac{\text{Bombay Local Boards Act, 1884}}{\text{Bombay District Municipal Acts of 1873 and 1884}}$ hereinafter referred to as the said $\frac{\text{Local Board}}{\text{Municipality}}$ of the one part and the Secretary of State for India in Council hereinafter referred to as the Secretary of State of the other part:

WHEREAS the said $\frac{\text{Local Board}}{\text{Municipality}}$ has applied to Government for a building site for a School at   and for a building grant-in-aid of such School and has satisfied the Director of Public Instruction, Bombay, that the building is intended for and will be devoted to educational purposes and in part to secular education, that the plans, estimates and specifications are satisfactory and that the building   constructed;

AND WHEREAS by the rules now in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of schools it is provided (*inter alia*) that no portion of a building grant shall be paid to the Managers of School unless and until they execute a trust-deed as in the said rules provided;

AND WHEREAS the said Secretary of State has agreed to allot the piece or parcel of land valued at Rs.   described in the Schedule hereto and to hold the same for the purposes of the said School in manner hereinafter appearing and has sanctioned a building-grant of Rs.   paid to the said $\frac{\text{Local Board}}{\text{Municipality}}$ and the said $\frac{\text{Local Board}}{\text{Municipality}}$ has agreed to execute these presents;

NOW IT IS HEREBY DECLARED AND AGREED by and between the parties hereto that the said Secretary of State, his successors and assigns shall hold and stand possessed of the piece of land described in the Schedule hereto, and all buildings which now are erected or may for the time being be erected thereon, and also all fittings and fixtures which now are or may for the time being be on the premises, upon the trusts and to and for the intents and purposes following; that is to say, upon trust to permit the said $\frac{\text{Local Board}}{\text{Municipality}}$ to enter upon the said premises for the purposes and on the conditions following, *viz.*, that the said $\frac{\text{Local Board}}{\text{Municipality}}$ and its successors shall —

(1) construct within   months from the date hereof buildings thereon according to the plans and specification approved of, or as may be approved of, by the Director of Public Instruction, Bombay, for and on behalf of the Secretary of State;

(2) maintain and keep at all times in good and substantial repair and condition all the buildings now being, or which may hereafter be, on the said piece of land to the end that the same may be always efficient for use for the purposes of a school;

(3) pay all rates, charges, assessments and expenses leviable or chargeable in respect of the premises and buildings;

(4) use all the premises and buildings as and for the purposes of a public School to be devoted wholly to education and, in part, to secular education;

(5) manage and conduct the said School in all respects in accordance with the rules and regulations

for the time being in force of the Educational Department in Bombay;

(6) keep the said School at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department:

PROVIDED ALWAYS and it is hereby declared and agreed that in the event of default being made by the said $\frac{\text{Local Board}}{\text{Municipality}}$ or its successors in the performance of any of the conditions hereinbefore mentioned the building-grant or so much of the same as shall not then have been made shall lapse; and it shall be lawful for the said Secretary of State, his successors or assigns at any time thereafter to enter upon and take possession of the said premises and all buildings, fittings and fixtures for the time being on the said premises, and the same shall be and become absolutely the property of the said Secretary of State, his successors and assigns, free from incumbrances and from all claims of the said $\frac{\text{Local Board}}{\text{Municipality}}$ or its successors, representatives and assigns and all other persons whomsoever.

IN WITNESS WHEREOF *A. B.* the President of the said $\frac{\text{Local Board}}{\text{Municipality}}$ and *C. D.* and *E. F.* two other $\frac{\text{Members}}{\text{Commissioners}}$ of the said $\frac{\text{Local Board}}{\text{Municipality}}$ have hereunto set their hands and the common seal of the said $\frac{\text{Local Board}}{\text{Municipality}}$ and *G. H.* Esq., hath by order of the Governor in Council set his hand and the seal of his office hereto, for and on behalf of the Secretary of State for India in Council.

THE SCHEDULE ABOVE REFERRED TO.

Description and boundaries of property:

The piece or parcel of land measures in superficial area
square be the same a little more or less, situated in
the $\frac{\text{town}}{\text{village}}$ of and bearing Number in the
Taluka of in the District of
and in the registration Sub-district of
in the said District, and measures from North to South

feet and from East to West feet, be a the same little more or less, and is bounded as follows :—

on the North by ____
on the South by ____
on the East by ____
and on the West by ____

Signed by

____

in the presence of

____

____

Seal of
Office of
G. H.

Common
Seal.

(Signatures).

A. B. President
C.D. *E.F.* Members ____ Commissioners
District Local Board of ____
Municipality of

G. H. Secretary to Government.

FORM No. III.

Trust Deed under Grant-in-aid Code Form No. 3 (part of site granted by Government and part aqcuired privately).

THE SECRETARY OF STATE IN COUNCIL.
TO
____

THIS INDENTURE made the day of 189 between incorporated under the Bombay hereinafter referred to as ' the Corporation' of the one part and the Secretary of State for India in Council hereinafter referred to as 'the Secretary of State ' of the other part :

WHEREAS the Corporation is possessed of and absolutely entitled in perpefuity tree from incumbrances to a piece of land described in the first schedule hereunder written and has applied to Government for the adjoining piece of land described in the second schedule hereto so that the two pieces of land may be together used as a building site for a school at and has also applied to Government for a building grant-in-aid of such school and has satisfied the Director of Public Instruction Bombay that the building is intended for and will be devoted to educational purposes and in part to secular education ;

AND WHEREAS the plans estimates and specifications for the school have been approved of by the Diretcor of Public Instruction ;

AND WHEREAS by the rules in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of schools it is provided (*inter alia*) that no portion of a building grant shall be paid to the managers of a school unless and until they execute a trust Deed as in the said rules provided ;

AND WHEREAS the said Secretary of State sanctioned a building grant of Rs. in consideration of the Corporation executing this deed and conveying and assuring to the said Secretary of State the piece of land described in the first schedule hereto and the said Secretary of State has agreed to hold the whole of the two pieces of land described in the first and second schedules hereto (that described in the second schedule already belonging to the Secretary of State being valued at Rs.) for the purposes of the said school in manner hereinafter appearing ;

AND WHEREAS the Commissioner Division has as recorded in his memorandum No. dated the day of 18 sanctioned the transfer hereby made ;

NOW THIS INDENTURE WITNESSETH that in consideration of the premises and of the sum of Rs, paid to the said Corporation (receipt whereof is hereby acknowledged) and of the declarations hereinafter contained the said Corporation doth hereby grant convey and assign unto the said Secretary of State his successors and assigns all that piece of land described in the first schedule hereto together with all and singular the buildings and erections now being or which may hereafter be thereon or on any part of the said land described in the schedules hereto or either of them and all rights easements and appurtenants usually held or occupied with the premises or reputed to belong or be appurtenant thereto and also all fittings and fixtures being in and belonging to or used or to be used in or in the said buildings and premises and all the estate right title interest claim and demand of the said Corporation into and upon the said premises;

TO HOLD the same unto and to the use of the said Secretary of State his successors and assigns and accordding to the nature or tenure thereof and the said Corporation doth hereby for itself and its successors convenant with the said Secretary of State his successors or assigns that it has power to grant the premises hereinbefore expressed tobe hereby granted to the said Secretary of State his successors and assigns free from incumbrances and that the said Corporation and its successors and every person claiming any interest therein will at the cost of the said Corporation execute and do all such acts and things for the further or better assuring the said premises to the said Secretary of State his successors or assigns as shall be reasonably required and it is hereby declared and agreed that the said Secretary of State his successors and assigns shall hold and stand possessed of the pieces of land described in the schedules hereto and all buildings which now are erected or may for the time being be erected thereon and also all fittings and fixtures which now are or may for the time being be on the said premises upon the trusts and to and for the intents and purposes following that is to say upon trust to permit the Corporation to enter upon the said premises for the purposes and on the conditions following which conditions the said Corporation for itself and its successors covenants to perform and abide by, viz., that the said Corporation and its successors shall—

(1) construct within months from the date hereof buildings thereon according to the plans and specifications approved of or as may be approved of by the Director of Public Instruction Bombay for and on behalf of the Secretary of State; and shall

(2) maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said pieces of land to the end that the same may be always efficient for use for the purposes of a school; and shall

(3) pay all rates charges assessments and expenses leviable or chargeable in respect of the premises and buildings; and shall

(4) use all the premises and buildings as and for the purposes of a public school to be devoted wholly to education and in part to secular education; and shall

(5) manage and conduct the said school in all respects in accordance with the rules and regulations for the time being in force of the Educational Departmet in Bombay ; and shall

(6) keep the said school at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department :

PROVIDED ALWAYS and it is hereby declared and agreed that in the event of default being made by the Corporation or its successors in the performance of any of the conditions hereinbefore mentioned the building grant or so much of the same as shall not then have been made shall lapse and it shall be lawful for the said Secretary of State his successors or assigns at any time thereafter to enter upon and take possession of the said premises and all buildings fittings and fixtures for the time being on the said premises and the same shall be and become absolutely the property of the said Secretary of State his successors and assigns free from incumbrances and discharged from the trusts hereof and from all claims of the Corporation its successors or assigns and all other persons whomsoever ;

IN WITNESS WHEREOF President and and as two members of the said Corporation have hereunto set their hands and Esquire hath by order of the Governor in Council set his hand and the seal of his office hereto for and on behalf of the Secretary of State for India in Council.

THE SCHEDULES ABOVE REFERRED TO.

SCHEDULE I.

The piece or parcel of land measures in superficial area square be the same a little more or less, situated in the $\frac{\text{town}}{\text{village}}$ of and bearing Number in the Taluka of in the District of and in the Registration Sub-district of in the said District and measures from North to South feet and from East to West feet, be the same a little more or less, and is bounded as follows :—

on the North by____________________________
on the South by____________________________
on the East by____________________________
and on the West by____________________________

SCHEDULE II.

The piece or parcel of land measures in superficial area square be the same a little more or less, situated in the $\frac{\text{town}}{\text{village}}$ of and bearing Number in the Taluka of in the District of and in the Registration Sub-district of in the said District and measures from North to South feet and from East to West feet, be the same a little more or less, and is bounded as follows :—

on the North by ____________________

on the South by ____________________

on the East by ____________________

and on the West by ____________________

Signed by

____

in the presence of

____

____

Seal of
Office of
G. H.

Common
Seal.

(Signatures)

A. B. President

C. D. } $\frac{\text{Member.}}{\text{Commissioners}}$ } $\frac{\text{District Local Board of}}{\text{Municipality of}}$
E. F.

G. H. Secretary to Government.

FORM No. IV.

Trust Deed under Grant-in-aid Code. Form No. 4 (site granted by private persons on certain conditions).

THE SECRETARY OF STATE IN COUNCIL

TO

____

THIS INDENTURE made the day of 189 between hereinafter called the

Corporation of the one part and THE SECRETARY OF STATE FOR INDIA IN COUNCIL hereinafter called the Secretary of State of the other part:

WHEREAS the said Corporation is possessed of the piece of land described in the schedule hereto and have applied to the Secretary of State for a building grant-in-aid and have satisfied the Director of Public Instruction, Bombay, that the building is intended for and will be devoted to Educational purposes and in part to secular education, that the plans estimates and specifications are satisfactory, that the Corporation are possessed of the said piece of land and that the building will be within months from

AND WHEREAS by the rules now in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of schools it is provided (*inter alia*) that no portion of a building grant shall be paid to the Managers of a school unless and until they execute a deed or agreement as in the said rules provided;

AND WHEREAS the said Secretary of State has sanctioned a building grant of Rs. in consideration of the said Corporation entering into the covenants hereinafter contained;

NOW THIS INDENTURE WITNESSETH that in consideration of the sum of Rs. paid by the said Secretary of State to the said Corporation the said Corporation doth hereby for itself and its successors covenant with the said Secretary of State his successors and assigns that the said Corporation and its successors or other the Managers for the time being of the school carried on in the buildings erected or to be erected on the premises described in the schedule hereto shall—

(1) Construct within months from the date hereof buildings thereon according to the plans and specifications approved or as may be approved by the Director of Public Instruction, Bombay, for and on behalf of the said Secretary of State; and shall

(2) maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said piece of land to the end that the same may be always efficient for use for the purposes of a school; and shall

(3) pay all the rates, charges, assessments and expenses leviable or chargeable in respect of the premises and buildings; and shall

(4) use all the premises and buildings as and for the purposes of a public school to be devoted wholly to education and in part to secular education; and shall

(5) manage and conduct the said school in all respects in accordance with the rules and regulations for the time being in force of the Educational Department in Bombay; and shall

(6) keep the said school at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department;

AND in the event of default being made by the said Corporation or its successors or by the Managers for the time being of the said school in the performance of any of the covenants or conditions numbered (1) to (6) herein before mentioned the said Corporation or its successors will on demand by or on behalf of the said Secretary of State his successors or assigns the amount of the said grant-in-aid of Rs. together with the amount or amounts of all further and other grants-in-aid (if any) made by the Government for or in respect of the said school but without interest prior to the date of such demand;

IN WITNESS whereof the common seal of the said Corporation hath been affixed hereto and
have hereunto set their hands the day and year first above written.

THE SCHEDULE ABOVE REFERRED TO.

Description and boundaries of property:

The piece or parcel of land measures in superficial area
square be the same a little more or less

situated in the $\frac{\text{town}}{\text{village}}$ of and

bearing Number , in the
Taluka of in the District of
and in the Registration Sub-district of
in the said District and measures from North to South
feet and from East to West

feet, be the same a little more of less, and is bounded as follows :—

on the North by ______________________
on the South by ______________________
on the East by ______________________
and on the West by ______________________
Signed by

____
in the presence of
____
____

Seal of
Office of
G. H.

Common
Seal.

(Signatures)
A. B. President
C. D. Membe
E. F. Commissioners
District Local Board of ______________
Municipality of
G. H., Secretary to Government.

FORM No. I A.

Trust deed in Form No. 1 *under the Bombay Educational Grant-in-Aid Code (the building-site not being granted by Government).*

This Indenture made the day of between hereinafter called the Managers of the one part and *The Secretary of State for India in Council* hereinafter called the Secretary of State of the other part. Whereas the Managers are possessed of and absolutely entitled in perpetuity free from incumbrances to the piece of land described in the schedule hereto and intended to be hereby assured *And whereas* the Managers applied to the Secretary of State for a building Grant-in-aid of and have satisfied the Director of Public Instruction Bombay, that the building is intended for and will be devoted to educational purposes and in part to secular education that the plans estimates and specifications are satisfactory that the title of the Managers to the piece of land described in the schedule hereto is good and in order and that the building will be constructed within months *And whereas* by the rules now in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of schools it is provided (*inter* *alia*) as follows. No portion of a building-grant shall be paid to the Managers of a school unless and until they execute a Trust Deed as in the said rules provided and *whereas* the said Secretary of State hath sanctioned a building-grant of Rs.   to be paid as follows:— in consideration of the Managers executing to the said Secretary of State such conveyance or assurance as is hereinafter contained which they have agreed to do *Now this Indenture witnesseth* that in consideration of the premises and of the sum of Rs.   now paid and the sum of Rs.   to be hereafter paid as aforesaid by the said Secretary of State to the said Managers they the said Managers do and each of them doth hereby grant convey and assign unto the Secretary of State his successors and assigns *all that* piece or parcel of land described in the Schedule hereto together with all and singular the building and erections now being or which may hereafter be thereon expressly including the said buildings to be erected as aforesaid and all rights easements and appurtenances whatsoever usually held or occupied therewith or reputed to belong or be appurtenant thereto and also all fittings and fixtures being in and belonging to or used or to be used for the said school and all the estate right title interest claim and demand of the said Managers into and upon the said premises to hold the said piece of land chattels and effects and all other premises expressed to be hereby assured unto and to the use of the said Secretary of State his successors in office and assigns according to the nature and tenure thereof respectively *and* the said Managers do and each of them doth hereby for himself and themselves his and their heirs Executors and Administrators covenant that they have power to grant all the said premises to the said Secretary of State his successors and assigns in manner aforesaid free from incumbrances and that he and they and every other persons claiming through or in trust for him or them will at all times at his or their costs execute and do all such assurances and things for the further or better assuring the said premises to the said Secretary of State his successors and assigns as aforesaid as shall be reasonably required *and it is hereby declared* and agreed that the Secretary of State his successors and assigns shall hold the said premises *upon the trusts* and to and for the intents and purposes following that is to say *upon trust* to permit the Managers to enter upon the said premises for the purposes and on the conditions following viz; that they or other the Managers for the time being shall (1) construct within months from the date hereof buildings thereon according to the plans and specification approved of or as may be approved of by the Director of Public Instruction Bombay for and on behalf of the Secretary of State (2) maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said piece of land to the end that the same may be always efficient for use for the purposes of a school (3) pay all rates charges assessments and expenses leviable or chargeable in respect of the premises and buildings (4) use all the premises and buildings as and for the purposes of a public school to be devoted wholly to education and in part to secular education (5) manage and conduct the said school in all respects in accordance with the rules and regulations for the time being in force of the Educational Department in Bombay (6) keep the said school at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department *Provided always* and it is hereby declared and agreed that in the event of default being made by the Managers or other the managers for the time being of the said school in the performance of any of the conditions hereinbefore mentioned.

The building grant or so much of the same as shall not then have been made shall lapse and the aggregate amount of the building grant and all building grants from time to time advanced by Government for the school shall be repayable to Government *and for* the purposes of recovering any monies so due to Government it shall be lawful for the said Secretary of State his successors or assigns to enter upon and take possession of the said premises and all buildings thereon and to sell and absolutely dispose of the said premises and buildings in such manner as he or they in his or their absolute discretion shall see fit and apply the proceeds of such sale after payment thereout of all costs and expenses attending the same in or towards the recouping or reimbursing to the said Secretary of State the monies which may as aforesaid have become repayable or due to Government and pay the surplus if any to the Manager or Managers for the time being or to such other persons whom the said Secretary of State his successors or assigns may consider lawfully entitled thereto *In witness* whereof the said
have hereunto set their hands and seals and
hereunto set his hand and seal hereto for and on behalf of the Secretary of State for India in Council

The schedule above referred to

Description of property and boundaries, etc.

FORM No. II A.

Trust deed in Form No. 2 under the Bombay Educational Grant-in-Aid Code (the building site being granted by Government).

This Indenture made the day of 18 Between

hereinafter referred to as the Managers of the one part and the Secretary of State for India in Council hereinafter referred to as the Secretary of State of the other part *whereas* the Managers have applied to Goverment for a building site for a school at and for a Building-grant-in-aid of such school and have satisfied the Director of Public Instruction Bombay that the building is intended for and will be devoted to educational purposes and in part to secular education that the plans estimates and specifications are satisfactory and that the building will be constructed within months from the date hereof *and whereas* by the rules now in force in the Presidency Bombay for regulating the application of grants made by Government in aid of schools it is provided (*inter atia*) as follows. No portion of a building grant shall be paid to the Managers of a school unless and until they execute a Trust Deed as in the said rules provided *and whereas* the said Secretary of State has agreed to allot the piece or parcel of land valued at Rs. described in the Schedule hereto and to hold the same for the purposes of the said school in manner hereinafter appearing and has sanctioned a Building grant of Rs. to be paid as follows :—

and the said Managers have agreed to execute these presents *now it is hereby declared and agreed* by and between the parties hereto that the said Secetary of State his successors and assigns shall hold and stand possessed of the piece of land described in the Schedule hereto and all buildings which now are erected or may for the time being be erected thereon and also all fittings and fixtures and to which now are or may for the time being be on the premises *upon* the trusts and to and for the intents and purposes following that is to say, *upon trust* to permit the Managers

to enter upon the said premises for the purposes and on the conditions following *viz.* that they or other the Managers for the time being shall (1) construct within months from date hereof buildings thereon according to the plans and specification approved of or as may be approved of by the Director of Public Instruction Bombay for and on behalf of the Secretary of State (2) shall maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said piece of land to the end that the same be always efficient for use for the purposes of a school (3) shall pay all rates charges assessments and expenses leviable or chargeable in respect of the premises and buildings (4) shall use all the premises and buildings as and for the purposes of a public school to be devoted wholly to education and in part to secular education (5) shall manage and conduct the said school in all respects in accordance with the rules and regulations for the time being in force of the Educational Department in Bombay (6) shall keep the said school at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department *Provided always* and it is hereby declared and agreed that in the event of default being made by the Managers or other the Managers for the time being of the said school in the performance of any of the conditions hereinbefore mentioned the building-grant or so much of the same as shall not then have been made shall lapse *and* it shall be lawful for the said Secretary of State his successors or assigns at any time thereafter to enter upon and take possession of the said premises and all buildings fittings and fixtures for the time being on the said premises and the same shall be and become absolutely the property of the said Secretary of State his successors and assigns free from incumbrances and from all claims of the Managers their successors representatives and assigns and all other persons whomsoever *In witness* whereof the said
have hereunto
set their hands and seals and
hath set his hand and seal hereto for and on behalf of the Secretary of State for India in Council

The Schedule referred to

Description and particulars of property

The subjoined Government Resolution, General Department, No. 527, dated the 3rd February 1899, is published for the information and guidance of the Educational Officers.

Poona, Office of the
Director of Public Instruction,
18th February 1899.

E. GILES,
Director of Public
Instruction.

Government Servants.—

Public criticism of Government policy by Government servants.

GENERAL DEPARTMENT.

No. 527.

Bombay Castle, 3rd February 1899.

Letter from the Government of India, Home Department (Public), No. 2301, dated the 16th November 1898.

Memorandum from the Government of India, Home Department (Public), No. 2326, dated the 16th November 1898—

Forwarding the following addendum to the Pamphlet (second edition) containing the Rules and Orders of the Governor-General in Council regulating the conduct of public servants in respect of borrowing money, etc., circulated in 1891 (*vide*) Home Department endorsement No. $\frac{\text{9-Public}}{589-603}$ dated the 23rd March 1891):—

Insert the following at page 19 *of the pamphlet after the Entry No.* 12 :—

No. 144 (Public), dated the 6th October 1898.

From—The Right Honourable Lord GEORGE FRANCIS HAMILTON, Her Majesty's Secretary of State for India.

To—His Excellency the Right Honourable the GOVERNOR-GENERAL of India in Council.

I have received your letter of the 14th July, with enclosures, relating to a speech delivered by Mr. A. B.

2. It appears that Mr. A. B. made what is said to have conveyed the impression of being "an attack of a deliberate and somewhat violent character on the policy and proceedings of the Government."

3. It is not surprising that this action on the part of Mr. A. B. should at once have attracted the serious notice of his official superiors, or that he should have found it necessary, within eight days of the delivery of the speech,

to express his deep regret for his conduct. This apology your Government thought well to accept, and your acceptance was communicated to him.

4. In these circumstances I have no intention of commenting on this particular incident, so far as it affects Mr. A. B. individually. But I think it right, while fully recongnizing that every officer is entitled to form and to hold his own opinion on public matters, to record my entire agreement with the Lieutenant-Governor's statement of the rules which must govern the conduct of Government servants in India. It should be distinctly understood that (to use his words) " a member of the Government service is not at liberty to make an attack upon what he knows or believes to be the policy or procedure deliberately approved by the Government," and that " it is no justification of such attack that he is actuated by conscientious motives or has a strong conviction of the correctness of his own judgment. " I will add, further, that it is improper for an officer to convey to the pulic, whether in writing, or in a speech or otherwise, any opinion upon matters of Government policy which are, or are likely to become, the subject of public discussion. It is, of course, inevitable that cases must from time to time occur in which the decisions of Government do not commend themselves to the officers who may have to carry them out. On such occasion the officers in question, after making proper representations to their official superiors, have only two courses open to them, namely, either to acquiesce loyally and silently in the decision of the responsible authorities, or to resign their positions in the Service.

5. I am glad to have had of late more than one opportunity of stating publicly my high appreciation of the loyalty and self-devotion of the Indian Civil Service. Those qualities have never been more conspicuous than during recent years of difficult and anxious labour. But a clear understanding that the rules to which I have referred are in existence, and will be strictly enforced, can only tend to increase the efficiency of that Service; and I request that Your Excellency will take such steps as may seem to you advisable to make my views generally known and to ensure that improprieties, such as that which you have on this occasion thought fit to condone, shall not be repeated in future.

RESOLUTION.—Copies of the Addendum should be forwarded to all Departments of the Secretariat and all

Heads of Offices for information and communication to their subordinates.

R. B. STEWART,
Acting Secretary to Government.

NOTIFICATION.

THE subjoined Government Resolution No. 761 (Financial Department), dated 15th February 1899, is published for information and guidance of Educational Officers.

Poona,
28th February 1899.
E. GILES,
Director of Public Instruction.

Identification of Government pensioners by means of thumb-impressions.

No. 761.

FINANCIAL DEPARTMENT.

Bombay Castle, 15th February 1899.

Resolution of the Government of India, Finance and Commerce Department, Pensions and Gratuities, No. 4294-P., dated 1st October 1898:—

"READ—

Letters in the Finance and Commerce Department to the Comptroller and Auditor General, No. 5862-P., and to the Government of Bengal, No. 5863-P., dated 20th December 1895, proposing the experimental introduction into Lower Bengal, for the purpose of identifying Government pensioners, of Sir William Herschel's system of identification by finger impressions.

Letter from the Comptroller and Auditor General, No. 2053, dated 12th January 1898, reporting upon the working of the system for one year in Lower Bengal, and suggesting the general introduction of the system for the purpose of identifying Government pensioners.

OBSERVATIONS.—The system of identification by finger impressions had already been in use in Bengal to some extent in connection with the registration of documents and the identification of criminals, when, in December 1895, the Government of India proposed that, with the concurrence of the Local Government, it should be introduced as an experimental measure throughout that province for the purpose of identify-Government pensioners. The Government of Bengal accepted this suggestion, and rules were framed and the system actually introduced at all treasuries in the province in November 1896. The Government of India have now received the reports of a full year's working and are gratified to find that the system has already achieved such a measure of success as justifies its extension to other provinces. It is found that, with the exercise of a little care, the system is easy to work, the chief difficulty experienced at first—that of obtaining distinct impressions—being one that disappears with practice; that in all but exceptional cases it is accepted by the payees without demur; and that it affords a sound and easily applied check against fraudulent personation. The reports show that at several places there is an inclination to abandon the check, on the ground that the pensioners are few and are locally known to the Treasury officials. This however indicates some misapprehension. The great value of the scheme lies in the fact that it secures a permanent record of identification, which is independent of the personal knowledge of individual Treasury officials. Whether these officials use the impression or do not use it as an actual means of identification, the record of the mark should be carefully preserved, because it is by this means alone that it can be discovered whether, within a considerable period of time, there has been no change of identity.

RESOLUTION.—The Governor General in Council desires to recommend to all Local Governments and Administrations the adoption of this system as a permanent measure for the identification of pensioners in the Civil Department in British India generally. Rules for the identification of such pensioners, which are in force in Bengal, are annexed, together with a copy of the letter from the Comptroller and Auditor General, dated 12th January 1898, read in the preamble, and its enclosure.

ORDER.—Ordered that a copy of this Resolution be forwarded to all Local Governments and Administrations, to the Departments of the Government of India (except the Home Department), to all Heads of

Departments subordinate to this Department, and to all Accounants General and Comptrollers.

Ordered, also, that a copy be forwarded to the Home Department with reference to the endorsement from that Department, No. 288, dated 15th June 1898."

RESOLUTION.—Copies of the Resolution from the Government of India and accompaniments should be forwarded to all Departments of the Secretariat and all Heads of offices under the several Departments of the Secretariat for information and guidance.

2. The rules for the identification of pensioners by means of thumb-impressions in force in Bengal should be adopted in this Presidency, with this modification of Rule 10 that all pensioners whose monthly pension exceeds Rs. 50 should be exempted from the operation of the rules.

3. The Superintendent of Stationery should be authorised to supply the requisite materials, for the purpose of obtaining thumb-impressions referred to in Rule 13, to the officers indenting for them.

G. W. HATCH,
Acting Under-Secretary to Government.

GOVERNMENT OF INDIA.

FINANCE AND COMMERCE DEPARTMENT.

Rules for the identification of pensioners by means of thumb-impressions.

1. All applicants for service pensions, with the exception of those hereinafter mentioned in rule 10, shall, at the time of preparation of their applications for pension, make, before the head of the office, in the first page of their application for pension in the space provided therein for the purpose, an impression of the ball of the thumb of the left hand.

2. An impression similar to that mentioned in rule 1 shall at the same time be taken on a slip of paper and shall be attached to the application for pension.

3. These impressions will be sent together with the pension papers to the officer reporting on the claim to pension and be forwarded by him to the authority who has to sanction the pension. They will thereafter be

forwarded by the sanctioning authority to the officer who audits payments of the pension.

4. The impression given on the application for pension will serve in the auditing office as a permanent record of the impression, while that given on the separate slip will be pasted on the Disbursing Officer's half of the Permanent Pay Order.

5. In the case of non-service pensioners, the thumb-impression shall be made on the Descriptive Roll in presence of the officer preparing the roll.

6. In the case of non-service pensioners, an impression shall also be taken, by the office preparing the Descriptive Roll, on a separate slip of paper, and this shall be sent together with the roll to the Auditing Officer.

7. In the case of non-service pensioners, the impression given on the Descriptive Roll will form the Auditing Officer's permanent record, and that given on the slip will be pasted on the Disbursing Officer's half of the Permanent Pay Order in the space provided therein for the purpose.

8. The impression given on the separate slip will, in the cases of both service and non-service pensions, payable at the Presidency town of Calcutta, be pasted against the appropriate number of the Register of Permanent Pay Orders.

9. On the first appearance of a pensioner on or after April 1st of each year, the Disbursing Officer will, except in the cases of pensioners mentioned in rule 10, take an impression of the thumb of the pensioner's left hand on his pension bill, and besides identifying the pensioner from the other particulars given in the Disbursing Officer's half of the Permanent Pay Order or in the Audit Register (as the case may be), identify him from a comparison of the impression given on the bill with that pasted on the Permanent Pay Order or in the Audit Register, and in case of difference in the two impressions will refer the matter to the officer before whom the impression pasted in the Permanent Pay Order or in the Audit Register had been made.

10. Except Native Princes, European ladies, persons who have been gazetted officers and those specially exempted by Government (these exceptions being made on the ground that there can be no difficulty in future identification) all pensioners shall be liable to the operation of these rules.

11. Purdah ladies and illiterate pensioners shall give a thumb-impression on their bills before the person granting the life certificate, or in the case of illiterate pensioners who personally attend the paying office before the Disbursing Officer.

12. On the renewing of a Permanent Pay Order, the original impression shall be cut off from the old and attached to the new order.

13. Impressions should be taken in the following manner:— A small quantity of ordinary printer's ink (which will be supplied by the Superintendent of Stationery, Calcutta), mixed with a very small quantity of sweet-oil, should be well rubbed with an India-rubber roller on a tin slab until a very thin even layer is formed. The ball of the thumb of the left hand of the pensioner, after being wiped, should be laid on the inked slab and rolled from side to side (not rubbed) until sufficiently inked (this can be learnt from experience) and then lightly and carefully rolled on the paper on wich the print is to be taken in such a way the pattern of the whole of the ball of the thumb from side to side is clearly impressed on it. It must be specially borne in mind that any *side* movement, either at the time of applying or removing the thumb, will cause a smudge and spoil the impression.

14. In the case of pensioners now on the pension list, Disbursing Officers will, on the next occasion on which each pension is paid and after careful identification of the pensioner, take his or her impression on the Permanent Pay Order or Audit Register.

15. A thumb-impression should also be taken in the Service-books of persons in service in the space for "Distinctive Marks." In all cases when an officer is sent for medical examination, the examining Medical Officer or Board should be asked to obtain the thumb-impression of the candidate for appointment, leave or pension on the medical certificate. This last impression should afterwards be verified with that in the Service-book by the head of the office.

No. 2053, dated 12th January 1898.

From—The Comptroller-General,
To—The Secretary to the Government of India,
Finance and Commerce Department.

With reference to correspondence ending with your letter No. P.-3169 of 23rd July 1896, I have the honour to forward herewith copy of a letter No. P.-794 of the 30th December 1897, from the Accountant-General, Bengal reporting upon the working for one year of the system of identification of Government pensioners by means of thumb-impressions. The report seems to show that no real difficulty is felt in the working of the system, and that it is a safeguard against fraud. For these reasons and also because the system has been adopted in the case of Military pensioners, it seems to me that the system which was introduced only as an experimental measure, may be considered to have passed that stage and that the time has arrived for prescribing the general introduction of the scheme.

No. P.-794, dated 30th December 1897.

From—The Accountant-General, Bengal ;

To—The Comptroller-General.

With reference to your endorsement No. 684, dated 14th August 1896, forwarding a copy of the orders of the Government of India for the introduction of Sir William Herschel's system of securing the identification of persons by means of thumb-impressions, for the purpose of identifying Government pensioners, with a copy of the rules approved by the Government of India for the purpose, and requesting me to sumbit a report after the system has been in force for a year, I have the honour to report as follows.

2. The system was brought into operation in November 1896 when the necessary materials were supplied to the Treasury Officers by the Superintendent of Stationery. The thumb-impressions of pensioners already on the list were taken in November 1896 and the succeeding months, under rule 14 in Audit registers at the Presidency Treasury and on Permanent Pay Orders in the mofussil treasuries. The impressions of new pensioners were taken under rule 9, at the times of the first payments of the pensions and compared at the Presidency with the impressions given in the pension applications, and in the mofussil with impression pasted on the Permanent Pay Order under rule 7.

3. Purdah ladies and illiterate pensioners were required to give their thumb-impressions on each monthly pension bill under rule 11; but most purdah ladies belong to the Nizamut, Oudh and Mysore families, and as these have

been exempted by Government under rule 10, only a few purdah ladies now give their impressions.

4. The system has worked well and generally no difficulty has been felt either in the taking of the thumb-impression by the Disbursing Officer or in the giving of it by the pensioner.

5. In some cases the impressions taken were not clear, but this was due to defects in the preparation of ink or the ball of the thumb being very smooth.

6. The system is very useful and effective as is proved by cases in which the impression given on the bill was found to differ from the permanent impression, and the latter was found, on reference to the authority before whom it was taken, to be the impression of the thumb of the right hand instead of the left.

7. I have the honour to enclose a précis of the reports received from the Collectors and Deputy Commissioners in Bengal on the working of the system at their treasuries. In these reports there is a general consensus of opinion that the system should be made permanent, being useful as a check against impersonation, although at some of the treasuries its usefulness has not been realised owing to the number of pensioners being small and the pensioners being known to the Disbursing Officers.

Champarun.—Pensioners are identified by comparing the thumb-impression taken on the pension bill with the standard impression affixed to the Permanent Pay Order. The system has worked well; nothing has been found against it.

Monghyr.—The system will be a great help in suspicious cases when the Treasury Account Staff and the pensioners get accustomed to the mode of taking impressions; as present impressions are rarely free from smudges and blotches and the defects due to side movements and exertion of unequal pressure. The use of a magnifying glass is recommended.

Balasore.—The system has worked well.

Bogra.—The impressions are taken monthly on pension bills, and on comparison with the permanent impressions on the Permanent Pay Orders are found to agree. They are considered more useful in the case of illiterate pensioners, and are a means of securing the personal attendance of pensioners. The system has caused no inconvenience.

Satkhira Sub-division.—The system has worked satisfactorily. If the impression on the Permanent Pay Order is clear, there will be no difficulty in the identification of an unknown pensioner by a new paying officer.

Puri.—The system is working well and its great advantage is to secure better identification.

Mymensing.—The system appears to be good, although of very little practical effect, in consequence of the smallness of the number of pensioners in the district and all of them being personally known to the Treasury Officer or the Sub-Treasury Officer.

Singbhum.—The system has not been tested owing to the pensioners being known to the Treasury Officer; it would be useful in large districts with large numbers of pensioners.

Malda.—The system has proved satisfactory. It should be extended generally to transactions with treasuries where the payees are illiterate or unknown to the Treasury Staff. As the impression can be discriminated from each other when compared closely, an imposter would seldom give his impression for fear of detection by identification.

Pubna.—The system is advantageous inasmuch as it serves useful check upon illiterate and other persons against fraud.

Dinajpur.—No case for identification by this means has yet arisen, the pensioners being known; but a case might arise in which the system would afford an additional safeguard against fraud.

Rungpur.—The system is followed with advantage, as it compels the pensioner to attend the Treasury every time to draw his pension; it makes an attempt at fraud impossible. It should therefore be made permanent.

Nudia.—Experience shows the system to be advantageous. It has worked satisfactorily without causing any inconvenience.

Furidpur.—The system is found advantageous as it is found a very good safeguard against false personation.

Noakhali.—The system is not of any special advantage owing to smallness of the number of pensioners except being an additional precaution. It may be much useful in big districts having large numbers of pensioners.

Bhagalpur.—The system was intoduced on 1st April 1897, and as the impressions have not yet been repeated, there have been no opportunities for comparing them. Owing to a large number of payments being made on the 1st of the month, the impressions are taken in a hurry and therefore in many cases are not full, conspicuous, and clear. Identification from other particulars is quicker and easier. The system may, however, be retained as an additional precaution; it may work better after two or three years. Identification from photos is considered to be the surest and quickest method of identification.

Burdwan.—Since the introduction of the system, no instance of fraud has taken place, and hence its usefulness has not yet been practically brought into operation. The system is good and will facilitate detection of fraud and false personation. Owing to want of experience, distinct impressions have not been obtained in all cases.

Birbhum.—Thumb-impressions of illiterate pensioners are taken every month. All the pensioners in the district being known to the Treasury Officer, no malpractice or irregularity has been brought to light by this system.

Bankura.—The system is proved by all means the most effective, in addition to identification from personal marks which in some instances are very vague or not very accurate.

Khulna.—The pensioners being all known, their identification by thumb-impressions appears to be superfluous.

Jessore.—The system has worked well; the method is easy. All the pensioners are known, but as a check against false impersonation and for identification in doubtful cases the system may be continued.

Jalpaiguri.—The pensioners are all known; but the system is useful and may be continued.

Darjeeling.—The system works well.

Hazaribagh.—Thumb-impressions were taken on each occasion of payment. Difficulty is felt in comparing the impressions for want of knowledge of the principles on which to compare. The use of a magnifying glass is recommended.

Hoogly.—The system is appreciated; but in some cases the impressions become indistinct owing to defect in the preparation of ink.

Saseeram Sub-division, Cox's Bazar Sub-division.—The system has worked well and may be continued. The impressions are regularly taken.

Lohardogga.—The system has worked well and is useful as an additional method of securing the identification of pensioners.

Manbhoom.—The system is working well; but it was not introduced in the Gobindpore Sub-Treasury owing to the number of pensioners being only 3 or 4.

Tippera.—No particular benefit is derived by the introduction of the system as the pensioners are known to the Treasury Officer their number being small. The system will do good in places where the number of pensioners is large.

Gaya.—The system is gradually being appreciated; it is likely to check fraud.

Mazafferpur.—The taking of the thumb-impression was confined to the case of illiterate pensioners. The system is expected to work as satisfactorily as in the Registration Department.

Durbhunga.—No advantage has yet been obtained from the introduction of the system. However, as experience is gained, very great advantage will accrue from it.

Palamow.—The number of pensioners is small and the pensioners are all known to the Treasury Officer; so the advantages of the system are not clearly manifest. It will do much good in the identification of new pensioners.

24 *Pergunnahs.*—The system has worked satisfactorily. The impressions were at first badly taken; but the defect has since been remedied. The use of a magnifying glass is needed.

Backergunge.—The number of pensioners is small and the pensioners are all known to the Treasury Officer. The impressions were at first badly taken; but improvement has since been made.

Sonthal Pergunnah.—The system is a safeguard against fraud; it has worked well without any inconvenience to the pensioners who approve of and like it as a check against their being misrepresented.

Purnea.—The system has worked well. The impressions of all illiterate pensioners are invariably taken on pension bills, except one female Political pensioner who is exempted from personal appearance.

Chittagong.—The system has worked fairly well, the only difficulty being that illiterate pensioners do not easily acquire the delicacy of touch essential for a good impression. Upper class pensioners feel it inconvenient to soil their thumbs by being called upon to give thumb-impressions.

Midnapore.—New pensioners are identified by known persons or from the other particulars contained in the Permanent Pay Order. The system is not considered to be of material advantage in the case of pensioners who are natives of the district, but in the case of others it is likely to be useful.

Murshedabad.—The impressions were taken of all service pensioners, of male Political pensioners, and of such female Political pensioners as appear in public. Purdah females of the Nizamut family at first gave their impressions before the Nawab Bahadur of Morshedabad; but they have since been exempted by Government from giving the impression. Some of the impressions a first taken on the Collector's halves of Permanent Pay Orders were not sufficiently clear and distinct, but the defect has been rectified. Pensioners who appear personally are well known and their identification by the other particulars in the Permanent Pay Order is sufficient. Nizamut female pensioners are under the supervision of the Nawab Bahadur who grants them life certificates. Thumb-impressions are, however, additional safeguard, and as the taking of them entails little trouble, the system should be continued.

Cuttack.—Thumb impressions are taken monthly on the pension bills of purdah ladies and illiterate pensioners. Difficulty is experienced in obtaining the impressions of some of the old and infirm pensioners. In one case the impression taken on the first appearance of the pensioner was found to differ from that affixed to the Permanent Pay Order. On enquiry, the latter was found to be impression of the right hand. The system is calculated to discourage fraud, and as no difficulty is experienced in working it, it should be continued.

Dacca.—The system has worked well and is likely to prevent false personation and should be extended to all kinds of payments.

Bagerhat Sub-division.—Thumb-impressions, if properly taken, seem to be an additional security for the identification of pensioners.

Rajshahi.—The system is not likely to prove of itself a sufficient guard against fraud, but it well establish fraud when detected, and as such, is a valuable check and should be continued.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY (NEXT TO THE SMALL CAUSES COURT).

1. The following new books and fresh additions are now available in the Library :—

2. The Library and Museum are open to the Public every Saturday from 7 to 11 A. M. (Bombay time), and on other days by arrangement with the Curator.

3. See notice in *Record* for February 1887, page 44.

R. D. PRIOR,
Educational Inspector, C. D.

Poona, 15th February 1899.

Author.	Title of Work.	Publisher.	Price.		
			£	s.	d.
	Class 10A :—Catalogue of Books, &c.				
	The Book-seller for January 1899.	Whitaker & Sons.	0	0	6
	Class 11 :—Chemistry.				
Chapman Jones	Practical Inorganic Chemistry for advanced students.	MacMillan & Co.	0	2	6
	Class 14 :—Copy Books, &c.				
	The Royal Upright Writing Books, Nos. 1, 2, and 4.	T. Nelson & Sons.	0	0	1
	The Royal Writing Books, Nos. 1, 4, and 5.	Do.	0	0	1

Author.	Title of Work.	Publisher.	Price.		
			L	s.	d.
	The Royal Star Writing Books, Nos. 1, 4, 6, and 7.	T. Nelson & Sons.	0	0	1
	Royal Copy Books, Nos. 3,—5, 8—10, 13—15, 17, 18, 21, 24, and 25.	Do.	0	0	2
	Royal Upright Copy Books, Nos. 1 and 2.	Do.	0	0	2
			Rs.	a.	p.
	The Anglo-Vernacular Copy Book.	M.M. Shah.	0	1	6
	Class 16 :—*Drawing and Fine Arts.*				
			£	s.	d.
	The Royal Drawing Books, Nos. 1, 2. 4, 5, 7. and 8.	T. Nelson & Sons.	0	0	1
	Coloured Kindergarton Drawing Books, Nos. 1, 3, and 6.	Do.	0	0	2
	Class 17:—*Education, and Theory, &c.*				
D. Salmon ...	The Art of Teaching	Longmans, Green & Co.	0	3	6
A. T. Flux ...	Pupil Teachers' and Scholarship School Management.	T. Nelson & Sons.	0	1	6
	Class 25 :—*English Language' &c.*				
W. S. Dalgleish M.A.	Great Authors (Macaulay to Browning).	Do.	0	1	6
	Class 26:—*English Readers, &c.*				
R. W. Leftwich, M.D.	A Reformed Alphabet	Isaac Pitman & Sons.	0	0	5
Do. ...	The Reformed Reading Primer	Do.	0	0	6
	The Royal Star Readers, 1st Book.	T. Nelson & Sons.	0	0	8
	Do. do. 2nd Book.	Do.	0	0	9
	Do. do. 3rd Book.	Do.	0	1	0
	Do. do. 4th Book.	Do.	0	1	3
	Do. do. 5th Book.	Do.	0	1	4
	Do. do. 6th Book.	Do.	0	1	6
	The Royal Atlas Readers, No. I.	Do.	0	0	8
	Do. do. No. II.	Do.	0	0	10
	Do. do. No. III	Do.	0	1	2
	Do. do. No. IV.	Do.	0	1	4
	Do. do. No. V.	Do.	0	1	6
	Do. do. No. VI.	Do.	0	1	6
	Do. do. No. VII.	Do.	0	1	6

Author.	Title of Work.	Publisher.	Price.		
	Class 29 :—*French.*		£	s.	d.
E. C. Goldberg, M.A.	Mon Oncle et Mon Cure ...	MacMillan & Co.			
	Class 33 :—*German.*				
T. H. Bayley, M.A.	Vom Ersten Bis Zum Letzten Schuss.	Do.			
	Class 38 :—*History and Biography.*				
	The Empire, Part I.	T. Nelson & Sons.	0	1	0
	Do. Part II. ...	Do.	0	1	0
	Do. Part III. ...	Do.	0	1	0
	Our Kings and Queens, 4th Book.	Do.	0	1	3
	Brief History of the British Empire.	Do.	0	1	6
	The Empire—A History of Britain and the British People.	Do.	0	2	6
	The "St George" History Readers, Book I.	Do.	0	0	8
	Do. do. Book II.	Do.	0	0	10
	Do. do. Book III.	Do.	0	1	0
	Do. do. Book IV.	Do.	0	1	4
	Do. do. Book V.	Do.	0	1	6
	Do. do. Book VI.	Do.	0	1	8
	Do. do. Book VII.	Do.	0	1	10
	Class 50 :—*Miscellaneous.*				
Mary Harrison.	The School Cookery Book ...	MacMillan & Co.	0	0	6
	Class 51:—*Music and Singing.*				
	Nelson's Infant School Song Book, No. II.	T. Nelson & Sons.			
	Class 60:—*Reading Sheets, &c.*				
	Royal Crown Reading Sheets Part I., pages 18 dnd 21.	Do.			
	Royal Crown Word-building Sheets for Infant Classes (2 sheets).	Do.			
	Class 64 :—*Science.*				
Dexter and Garlick.	Psychology in the School-room	Longmans, Green & Co.	0	4	6

Author.	Title of Work.	Publisher.	Price.		
			£	s.	d.
E. R. Lush ...	Lessons in Domestic Science, Part II.	MacMillan & Co.	0	0	6
V. T. Murche,	Object-Lessons in Domestic Economy, Vol II.	Do.			
	SCHOOL APPARATUS, &C.				
	Class 9 :—*Maps.*				
	The Royal Wall Atlas No.—I. The British Isles.	T. Nelson & Sons.			
	Do. No. II.—Europe	Do.			
	Class 10 :—*Misccellaneous.*				
	The Royal Arithmetic Drill Sheets for Infants—Addition II.	Do.			
	The Royal Mental Arithmetic Drill Sheets—No. 7.	Do.			
	The Royal Arithmetic Drill Sheets (for all standards).	Do.			
	Class 12 :—*Object-Lessons.*				
	"Royal Science Readers," Wall Sheets, Book I., Lesson I., The Holly.	Do.			
	Natural History, 2nd Series. No. 7.—The Spider (with Metal Mounts).	Do.	0	2	0
	Natural History, 3rd Series, No. I.—Paws and Claws with Metal Mounts).	Do.	0	2	0
	Plant Life, 3rd Series, No. I.—Carnivorous Plants (with Metal Mounts).	Do.	0	3	0
	Plant Life, 4th Series, No. II.—Cocoa and Chocolate (with Metal Mounts).	Do.	0	2	6
	Class 16 :—*Writing Materials*				
	Royal Upright Writing Wall Sheets, No. I.	Do.			
	Royal Writing Wall Sheet. one (Royal School Series).	Do.			

List of appointments in the Educational Department from the 16th January to the 15th February 1899.

19th January 1899.—The following appointments are made from the 1st April 1899:—

Mr. K. H. Abhyankar, 2nd Assistant Deputy, Dharwar, to be Assistant Deputy, Karwar, *vice* Mr. B. D. Prabhu, retiring.

Mr. D. N. Koppikar, 3rd Assistant Deputy, Dharwar, to be 2nd Assistant Deputy, Dharwar, *vice* Mr. Abhyankar, promoted.

25th January 1899.—The following appointments are made in the Office of the Educational Inspector, Southern Division:—

Mr. G. S. Tonapi, 5th Clerk, to be 4th Clerk.

Mr. P. A. Sarap, 6th Clerk, to be 5th Clerk.

Mr. V. S. Gokakkar, Local Fund Clerk, to be 6th Clerk.

Mr. U. N. Perur, Head Clerk to the Deputy Educational Inspector, Bijapur, to be Local Fund Clerk.

25th January 1899.—Mr. S. G. Phadke, 2nd Clerk to the Deputy Educational Inspector, Belgaum, is appointed Head Clerk to the Deputy Educational Inspector, Bijapur.

Mr. B. B. Murdur, 2nd Clerk to the Deputy Educational Inspector, Kanara, is appointed 2nd Clerk to the Deputy Educational Inspector, Belgaum.

30th January 1899.—Mr. D. R. Tamankar is confirmed as gymnast in the Nasik High School.

31st January 1899.—Mr. N. K. Moralvar, 2nd Assistant and Acting 1st Assistant Deputy Inspector, Sholapur, is appointed 1st Assistant Deputy Inspector, Sholapur, *vice* Mr. Shaikh Hayat.

Mr. M. S. Kirtane, 3rd Assistant Deputy Inspector, Satara, and Acting 2nd Assistant Deputy, Sholapur, is appointed 2nd Assistant Deputy Inspector, Sholapur.

V. N. Subnis is appointed gymnast in the Poona Training College on probation, *vice* V. K. Patankar, retiring.

11th February 1899.—Mr. Jiwaji Vishnu Gothe, 3rd Assistant Master, Municipal 1st Grade Anglo-Vernacular School, Gokak, is appointed 3rd Clerk to the Deputy Inspector, Dharwar.

13th February 1899.—Mr. H. K. Vaidya, Head Master, Asoda School, is appointed 3rd Assistant Deputy Inspector, Satara, on probation.

14th February 1899.—Mr. V. W. Dekhane is confirmed as 7th Assistant, Hyderabad High School, and is transferred as 7th Assistant to the Shikarpur High School.

Mr. L. Y. Vaidya, 7th Assistant, Shikarpur High School, is appointed 7th Assistant, Hyderabad High School.

E. GILES,

Director of Public
Instruction.

Poona, Office of the Director
of Public Instruction,
22nd February 1899.

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The Bombay Educational Record and Literary Journal.

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U. S. F. Examination.

To the Editors, Bombay Educational Record, and Literary Journal.

DEAR SIRS,—Now that the U.S.F. Examination Scheme is under revision, I beg to forward as a contribution to the discussion that is now going on, (1) a copy of a paper read by me at the Educational Conference of 1896; (2) a Postscript to the above paper, bringing up the figures to 1898; and (3) my reply to a circular letter from Messrs. Kelkar and Kolhatkar.

You have already made a reference to the changes proposed by Messrs. Kelkar and Kolhatkar. It seems they have confined their attention to revising the course prescribed in Science. I have in my paper, as well as in my reply to their reference, looked at the subject as a whole from the standpoint of managers of schools.

I shall be happy if the papers I have sent to you elicit some discussion and lead to a satisfactory re-adjustment of the studies prescribed for the U. S. F. Examination.

Yours truly,

GARUD H. SCHOOL,
1st *March* 1899.

G. J. AGASHE.

(*Read on Friday, 2nd October,* 1896.)

UNIVERSITY SCHOOL FINAL EXAMINATION AND OUR HIGH SCHOOLS.

MR. PRESIDENT, LADIES AND GENTLEMEN,—I beg to propose for discussion some questions suggested by the practical working of the University School Final Examination Scheme.

Up to the year 1889 all our Anglo-Vernacular schools had only one curriculum to follow, *viz.*, that for the Matriculation. In 1889 came into operation the new scheme of the U. S. F. Examination, which had received the approval of the Senate as far back as July 1886.

A comparison of the subjects prescribed for both the examinations will give a clear idea of the amount of extra work thrown upon the schools and the disturbance caused thereby in the routine of school-work.

Amongst necessary subjects, English and Marathi are the only subjects that are common to both the courses, the standard prescribed by the University being the same, with this difference that Marathi is one of the optional languages for the Matriculation; while it is a necessary subject for the U. S. F. As regards Mathematics, Arithmetic alone is a necessary subject for the U. S. F., the Algebra and Euclid of the Martriculation being dropped. (1) History and Geography and (2) Natural Science of the Matriculation scheme find no place in the scheme for the U. S. F. This represents, so to say, the debit side of the account. On the credit side we have four additional Papers on two voluntary subjects. Thus, for six papers at the Matriculation, we have seven papers at the School Final Examination. Let us now see how the institution of this examination affects the working of schools.

As suggested by Prof. R. G. Oxenham, and finally recommended by the Educational Committee, bifurcation in an upper class of each school is now effected. I take it that in every school the bifurcation takes place in Standard VI., that is, that the boys are allowed to choose either of the two courses after the fifth standard is completed. Now, let us see what this bifurcation really means. Let us consider the case of a boy who prefers the U. S. F. course. Knowing that he has to pass an Examination in Marathi, he does not care to learn Sanskrit or any other classical language. Nor does he attend to History and Geography, Algebra in Standard IV. and Euclid in Standard V. As soon as he finds himself in Standard VI., U. S. F., he drops what little he may have learnt of (1) History and Geography, (2) Algebra and Euclid.

If he has read Sanskrit in the two lower Standards, he gives up that too. Now the question is, has the study of (1) History and Geography, (2) Algebra and Euclid, and, possibly, of Sanskrit, also been of any use to the boy educationally? And this question must be answered in the affirrmative. If, then, he has benefited by the study of these subjects in the lower standards, is it desirable that he should be allowed to forget these subjects? If he has paid but indifferent attention to these subjects, the trouble undergone and the time spent in teaching them is a waste on the part of his teachers. Let us now consider the case from another standpoint. A boy under Standard V. has at his Annual Examination failed in (1) History and Geography, (2) Arithmetic and Algebra, and also Sanskrit. He has passed only in English and Arithmetic, which is a sub-head, and his teacher is naturally hesitating to recommend him for promotion to Standard VI. The boy pleads that he is going in for the U. S. F. Examination, and the teacher is silenced. What if he has failed in History and Geography and Algebra and Euclid and Sanskrit to boot? In the U. S. F. Standard VI. he can afford to do without all these. Now, let us compare with this the case of a boy in the same predicament, but intending to read for the Matriculation. In his case there is no hesitation on the part of his teacher, and the boy, having failed in three heads out of four, is pricked for detention for a year longer in the same standard. The boy who takes up the U. S. F. may be sent up, while his compeer, who prefers the Matriculation course, has to remain in the same standard. It may, indeed, be urged that a boy who fails in three heads under Standard V. should not be promoted. But I submit that there is a limit to strictness even in the matter of promotions, and a trial in a higher standard is found sometimes to stimulate a dull boy to activity. What is the impression made upon the boys by such instances as these? Are they not likely to consider the study of History and Geography and Algebra and Euclid as unprofitable? It is impossible for them at their stage to understand the educational value of these studies. No one can say that the study of these subjects is beneficial up to a certain limit and no further. But when, as a matter of fact, we do permit the dropping of these subjects, we indirectly seem to say that the study of these subjects is not of much importance—a state of things which I, for one, greatly deplore. If in the earlier stages these subjects are considered to exercise a wholesome influence, they cannot cease to do so in the higher stages, and the only plea in justification of the dropping of these subjects is the one so often advanced, *viz.*, that of throwing open an easier course for pupils who are unable, intellectually or pecuniarily, to grapple with the higher course of the Matriculation Examination. In doing this we sacrifice, in my humble opinon, our long-cherished theories of a comprehensive liberal Education on the Altar of Utility. Let us look at the question from the standpoint of parents. The majority of parents are themselves wage-earners, not well able to afford the expenses of a collegiate education. Looking upon Examination as a throw of the dice, many hang their hopes upon the uncertain chance of their sons obtaining a high rank in the Matriculation List. Many are unable to make up their mind one way or the other ; and cases do occur in which boys pass from one division to the other after one or two months' attendance in either. And some pupils again have attended and have successfully passed both the Examinations. The question now to be considered is, how to secure attentive preparation in subjects which are ignored by the University ? And also how to prevent this oscillation between the two courses ? Both these evils are caused by the circumstance that the two courses are taught side by side in the same school, and the most obvious remedy would be to have distinct schools for these two courses. For schools situated in the smaller towns, where the parents are comparatively poorer and where a knowledge of English is sought only as a qualification for employment under Government, the U. S. F. course alone should be prescribed.

2. If this suggestion of distinct schools be not approved then the second best remedy would be some differentiation in the rates of fee charged. I understand that it is so in some schools but not all. If different rates were charged for the two courses parents would be compelled to make their choice once for all, and there would be no vacillation as at present.

3. A third remedy would be the effecting of the bifurcation as soon as the Anglo-Vernacular standard III is completed. But this would be in direct contravention of the recommendations of the Educational Committee. There would be the further objection that those who wish to pass the second Grade P. S. C. Examination, which has not yet ceased to attract some candidates, would have to study privately the portions of

History and Geography prescribed for that Examination. Against this may be pitted the great saving in time to the U. S. F. students who will then have four years time to prepare themselves in their voluntary subjects, the hours saved from lessons in History and Geography and Algebra and Euclid being given to the voluntary subjects. If this standard be considered too low for the bifurcation, we may go one standard higher up. If we form our U. S. F. classes under standard V we shall be steering a middle course neither putting too much unnecessary burden upon U. S. F. candidates nor denying to them too much of that general grounding which must form the basis of every scheme of special education.

4. The fourth and in my humble opinion the best course would be to induce the University. to include (1) History and Geography, and (2) Algebra and Euclid as far as these subjects are done in standard VI in the list of necessary subjects for the U. S. F. and to prescribe any two voluntary subjects to be learnt in the highest standard of each school. Candidates for the Matriculation now learn elementary Natural Science in the seventh standard. In place of this U. S. F. candidates may learn Biology, or agriculture or Botany, and they might also take up drawing as another voluntary subject. Against this proposal it is urged that the Educational Committee has distinctly recommended a non-literary course for the U. S. F. For my part I do not think that the addition of a little of History and Geography would impart to the U S.F. Examination a literary character. Besides inculcating lessons in wisdom and morality, the study of History through the English Language indirectly helps the acquisition of a knowledge of that language; because a boy has to read so much in the preparation of his lessons and has to compose so much when he is answering questions in History. Moreover, a knowledge of History enables one to understand the language better than he can otherwise. As for Geography—A knowledge of this subject is essential to those who are engaged in commercial pursuits. It may be remembered here that History and Geography are included in the list of necessary subjects prescribed for the commercial certificate at Cambridge. (*Vide* p. 103 of " Educational Record" for 1888 "or Cyclopædia of Education," p. 439—Technical Education.) In the best Middle Class Schools in England, Mathematics, practical and theoretical, and History and Geography are not ignored. (*Vide* " Encyclopædia of Education," p. 218 Middle Class Schools.) A knowledge of Algebra is necessary for under-

standing the formulæ of Science, and in some schools one or two hours are devoted to this subject even in the U. S. F. VI. In the case of those who take up drawing as one of the voluntary subjects a knowledge of the first two Books of Euclid is no great addition, but Geometry holds such an honored place in the Science of Education that I do not see why it should be omitted altogether, especially when a fair start has been made in standard V.

What I would propose therefore is that the U. S. F. should recognize as much of History and Geography and Mathematics as has been done in standard VI. This course would obviate the necessity of bifurcation in any standard lower than the VII, would take stock of everything the candidate has learnt in the previous standards, would secure the maximum of intellectual grounding, while it would minimise the inconveniences to teachers. You may all remember in this connection the weighty words of Sir R. West who, in the statement submitted by him to the Educational Committee, says:—

"The bifurcation should not take place till the last stage of school education. The experiment of instruction confined to Physical Science at earlier stages after a long and fair trial in Germany has in recent years been pronounced a failure. In France a premature separation of studies made Science Education a laughing stock. Professors of Chemistry even find that a boy trained in the ordinary classical culture makes greater progress in this Science than one who has been nurtured almost solely on physical teaching. The fact must be recognised if we will not cast experience aside that the last instrument for enlarging and enlivening the faculties in youth is some central line of study not too narrow in its essentials, not standing quite apart from the emotions and the imagination, but with attachments every here and there connecting it with great human interest and "the mighty hopes that make us men." Even Physical Science is better grasped by a mind thus cultivated than by one trained to a one-sided development."

If the University cannot be induced to do this, let us persuade it to prescribe as optional subjects only those to which Government has given a preference—*viz.*, Natural Philosophy, Biology, Drawing, or Agriculture. Even this concession on the part of the University will go some way to lessen the confusion which is occasioned by a multiplicity of optional subjects. In most Government Schools provision has been made for teaching two out of the four optional subjects selected by Government. But candidates often take up Marathi, Mathematics as voluntary subjects—the former because they can get up the necessary books without much extra work and the latter because the subject is well nigh finished in Standard VII up to the requirements of the University. But passing the Examination with these subjects does not qualify for the Public Service—a fact which is overlooked by candidates and sometimes also by those who have to administer Government patronage. If a way could be found to remove the unfortunate disagreement that is now apparent between the Government and the University in the matter of the voluntary subjects, even then some of the confusion that now prevails would disappear. Having placed before you the difficulties of the managers of schools in the practical working of the U. S. F. Scheme and having also suggested in my humble way some means to redress the evils, I now proceed to inquire how far the expectations of the originators of the scheme have been realized. Mr. R. G. Oxenham, then Principal of the Deccan College, in his evidence before the Educational Committee, stated that he was of opinion that the University Matriculation Examination should be abolished, and in its place might be substituted a Middle Class Examination in practical subjects for young men who are not going to follow a University career. Dr. Mackichan, the learned Principal of the Wilson College, addressing the Senates as Vice-Chancellor of the University at the Convocation of 1889-90, said that the change referred to (meaning the Institution of the U. S. F.) was undertaken in the interests not only of those who had another than an academical future before them but also of those who were destined for an University career. The conviction has been growing that an University Education cannot be turned to advantage by all who arrive at that standard of education, which was wont to be determined by the Matriculation Examination, and that if the door of exit from the school was also the door of admission to the University, many might be misled into paths which they could never follow with advantage of success. It has also been accepted as a true principle in education that culture is more advanced when a smaller number are furnished with the highest means of training than when it is shared by an excessive number who necessarily lower the level of collective achievement, because the highest training cannot be placed within the reach of all." Elsewhere in the same address he says "the University School Final Examination is in its infancy, and while it is impossible to predict the course of its future growth it is interesting to note such indications as it has already given of its fitness to accomplish the end contemplated in its Institution. Already 146 candidates out of more than 500 have passed this Examination, and the number of candidates for Matriculation has shown a corresponding diminution." So far Dr. Mackichan. Let us now compare the figures for the two examinations from 1889 to 1895.

Year.	Matriculation.		U. S. F.	
	Sent up.	Passed.	Sent up.	Passed.
1888	3,478	914	...	...
1889	2,875	746	505	146
1890	2,957	744	820	331
1891	3,030	916	1,267	358
1892	2,919	1,054	1,466	399
1893	3,004	649	1,578	435
1894	3,209	934	1,655	267
1895	2,981	944	1,603	431
Av. ...	2,996	855	1270·5	338

It is now fully seven years since the first U. S. F. Examination was held. Seven years represent the entire length of the Matriculation or U. S. F. course, and pupils who were admitted to an Anglo-Vernacular School in 1889 have now reached the highest standard of the school education.

It is therefore time to examine these figures closely.

It may be seen that the number for the Matriculation, though never so large as that for 1888, has fluctuated between 2,875 and 3,209, the average for the seven years, *viz.*, 1889 to 1895, being 2,996 or nearly 3,000. As regards the U.S.F., the number rose with leaps from 505 in 1889 to 820 in 1890 and to 1,267 in 1891. At this stage the number became steady, and each year the average increase for the four years from 1891 may be put down at 100. The average increase for the Matriculation for the seven years is only 17 per annum. This shows that though the U. S. F. Examination is attracting increasing numbers, it has not weaned many from the Matriculation course. Perhaps this increase in the number of candidates for U. S. F. from 505 in 1889 to 1,603 in 1895 represents the general increase in the attendance of schools. It may also be, and I incline strongly to the opinion, that this increase is due, in a large measure, to the fact that the U. S. F. Examination is recognised as a sufficient educational qualification for admission to the Pleader's Examination. On the other hand, many who should have joined the U. S. F. Classes are still studying the Matriculation course, because prejudices die hard, and the Matriculation being an Examination of long standing has a prejudice in its favour. It also qualifies for admission to a college as well as for appearing for the Pleader's Examination. If there were only one Examination for the Professions, and another distinct Examination for entrance to business or commerce, we should be in a position to say with confidence whether the elimination of the inferior material (which was one of the objects contemplated by the University) is really taking place. Coming to an individual Examination of the Government and some only of the Private Schools of the Central Division, I find that the U. S. F. Examination has not affected the attendance in the Matriculation Classes of the Elphinstone, Poona, Thana, and Sholapur High Schools, and the New English School, Poona. The Head-master of the Nasik High School says that he cannot give a dicided opinion either way. At Satara matters are gradually tending towards U. S. F. In the Ratnagiri High School the attendance in the Matriculation Class has fallen from 43 in 1889 to 20 in 1896; but the U. S. F. Class is growing comparatively stronger. In my own school, the Matriculation Classes up to now have been comparatively larger, but from the strength of the classes now reading the VI. Standard, it appears to me that Dhulia will soon show its strength in the U. S. F.

It was also hoped that by the institution of the U. S. F. the calibre of the Matriculation Classes would improve by the necessary weeding out of inferior material. It is for the Professors of Colleges to say whether these expectations have been realised. For my own part I have not noticed any change for the better in the material of the Matriculation side. It is, indeed, true that the less promising students join the U. S. F. side, but they do so because their means are as limited as their brains. I have not come across a single case in which a son of rich parents deliberately preferred the easier course because of the want of mental capacity. Again, when it is said that boys "inferior in quality" join this course, it may be that this inferiority is the result of a one-sided training in the lower standards. This one-sided training being itself the inevitable result of the action of the University in discarding certain subjects of general mental culture.

Gentlemen, I have perhaps taken longer time than I had a mind to do, but I rely upon your indulgence for a few words more. However much we may desire that education should be sought for its own sake, we must recognise the hard facts that most parents look upon it as a means to earning a livelihood, and many boys go in for both the Examinations; because they want, as Mr. Prior says, to have a second string to their fiddle. The sharp line that was sought to be drawn between academical and non-academical careers has not been drawn. We had already the 2nd Grade P. S. C., and the U. S. F. Examination being a higher Examination has come to be looked upon as the 1st Grade P. S. C. So long as the standard for English at the Matriculation is not raised, the capacity of the junior students in colleges will remain what it has been. It is not in human nature to work without an end in view, and it would be too much to expect proficiency in subjects which bring no credit or have no marketable value. The University has the control of all education. It is a body which is above us and independent of us. Yet, if it lays down schemes that cannot be efficiently worked, it will be no fault of the schools. My faith, however, in the wisdom of the University is too great to permit me to suppose, even for a moment, that it will be deaf to the united voices of teachers assembled in this Conference. Having devoted the best portion of our life to the practice of education, we cannot but take as much interest in the well-being of the University as that body takes in the efficiency of schools. Trusting that this subject will soon attract attention, and thanking you all for the courtesy and patience with which you have listened to me, I resume my seat.

P.S.—It is now over three years since I read a paper on the subject of the U. S. F. at the Educational Conference of the Central Division. Since then a marked decline has taken place in the number of candidates for the U. S. F. Examination. In the paper above referred to I contrasted the figures for the two Examinations, *viz.*, the Matriculation and the School Final for 7 years (1889—1895). The table given below brings the comparison up to 1898, and gives a complete view of the situation. On a careful study of the figures it will be seen that while the number of candidates for Matriculation has oscillated between 3,300 and 3,000, that for the U. S. F. has actually gone down. The three years, 1896–1898, have, indeed, been Plague years, but it would appear that the Plague did not affect the Matriculation so much as it did the U. S. F. My own view is that this Examination showed a distinct fall in public esteem. It attained its highest popularity in 1894 and the downward current began in 1896, and for the last two years the number has remained almost the same (600 less than in 1894), though the Matriculation recovered in 1898 the ground lost in 1897. A fall of 600 in four years (from 1,655 to 1,054) shows, in my opinion, a distinct revolution in public feeling.

It is the want of agreement between the University and the Government that gives most trouble. Certain of the subjects prescribed by the University, such as History and Geography, Mathematics and Vernacular, can be got up by candidates without much extra preparation, since these subjects form a part of the ordinary curriculum of schools. In the place of these subjects candidates, who intend to pass the U. S. F., with a view to employment in the Public Service, have to learn two new subjects, and hence arises the necessity of bifurcation and the unlearning of subjects once learnt.

3. It would be interesting to find out from the University records (1) how many candidates have taken up the subjects prescribed by Government; (2) how many have offered any two out of (*a*) History and Geography, (*b*) Mathematics, (*c*) Vernacular. If this information were obtained we should be in a position to judge whether the disagreement between Government and the University need at all be allowed to continue.

4. An authoritative pronouncement from the College authorities in regard to the calibre of latter-day Matriculates will also be of great use in ascertaining whether the hopes of the original promoters of the U. S. F. Examination have been realized.

5. For my part I do not see why the Matriculation should not be an Entrance Examination for Public Service—leaving the colleges to apply their own tests for admission, if need be.

G. J. AGASHE,
Head-Master.

Garud High School,
1st March 1899.

Year.	Matriculation.		School Final.	
	Sent up.	Passed.	Sent up.	Passed.
1888	3,478	914	......	......
1889	2,875	746	505	146
1890	2,957	744	820	331
1891	3,030	916	1,267	358
1892	2,919	1,054	1,466	399
1893	3,004	649	1,578	435
1894	3,209	934	1,655	267
1895	2,981	944	1,603	431
1896	3,323	1,231	1,416	255
1897	3,007	1,042	1,050	237
1898	3,267	1,095	1,054	249

GARUD HIGH SCHOOL, DHULIA,
February, 18th, 1899.

To
MESSRS. N. C. KELKAR & B. S. KOLHATKAR,
SATTARA HIGH SCHOOL.

Dear Sirs,—I owe you an apology for having left your printed reference unanswered till now. I have considered your scheme in detail in consultation with Messrs. G. V. Dange, B. A., and R. G. Apte, B. A.

Your suggestions in regard to Vernacular Report and Mensuration may be adopted.

The objections raised by you against the present scheme are, no doubt, real and though it may be conceded that a fair acquaintance with the broad principles of Natural Philosophy is very desirable, I do not think that the course proposed by you will mend matters either for the candidates or for the managers of schools. While you have done away with certain "disgusting details" you have in their place introduced a bewildering diversity of subjects which will distract both the teachers and the taught. Your scheme will, besides, necessitate the appointment of a science specialist, able to teach all the subjects grouped by you under I and II.

To me it appears that the best thing to do will be to end the examination rather than seek to mend it. It is now ten years since the examination was instituted and the experience of all these years has not made out a clear case for its continuance. It is not popular with the pupils nor has it given any satisfaction to those Government officials who have to administer the patronage of Government in filling up vacancies in the lower grades of the Public Service. Candidates who have passed the Matriculation are justly considered to be superior men. Under these circumstances I, for one, would hail the abolition of this examination altogether.

If it be not possible to end this examination altogether and if distinct schools cannot be maintained for preparing candidates for this examination, then the next best thing to do would be to assimilate this examination and the Matriculation as nearly as possible. I do not see why the present Matriculation should not serve for entrance into the Public Service as it does for admission to the Colleges. I do not know if the authorities in our Colleges have noticed any superiority in the Matriculates of the last ten years over their predecessors of ten years ago. If they have, then the examination will have to be kept on with such modifications of the scheme as suit the present machinery.

If the drafting of the inferior material into the channels of the public service is at all needful, I would retain under the head of necessary subjects all that our students have learnt under A. V. standard VI. This alone will prevent the present waste of teaching power so far as candidates for the U. S. F. are concerned. In most schools there is no bifurcation of the two sets of candidates under any standard below the sixth. But those candidates who have the U. S. F. in view neglect History and Geography and Algebra in standard IV and do not attend to Euclid in standard V. They know that a knowledge of these subjects counts for nothing in the U. S. F. Examination.

What is the result? The master's labour in teaching the subjects not required for the U. S. F. is thrown away. To the candidates for U. S. F. there is the loss of so much general knowledge and of intellectual discipline. A knowledge of elementary History and of general Geography finds a place in the curriculum of professedly Industrial schools in England and on the Continent of Europe, but we ignore these subjects altogether. The reading of History in English, besides its influence on the formation of character, is a great help to a native of India in acquiring a knowledge of the English language. A knowledge of Geography is also an essential requisite for a successful career as a tradesman or a business agent. A knowledge of Euclid is necessary to enable a pupil to grasp the truths of physical science and the same must be said of Algebra.

Some sort of general culture is admitted by those entitled to give an opinion to be the basis of even a strictly technical education, and in my opinion our Matriculation Examination does not exact much more than a general grounding. If this be so why should certain subjects of the Matriculation be dropped altogether? If it is necessary to put in a little more physical science or to give to the U. S. F. somewhat of the character of a Technical Examination let it be done under standard VII, and let the work prescribed be such as can be done by a pupil of average ability in one year. Let the pupil, however, not unlearn all that he was taught up to the sixth standard.

I would, therefore, propose the following scheme for the U. S. F.:—

Necessary.

(1) English—one paper—as at Matric.

(2) Vernacular—one paper—as at Matric. Modi handwriting in essay to be considered.

(3) History & Geography—one paper—Standard VI.

(4) Mathematics—two papers—

One—Arithmetic and Algebra, Standard VI.

Two—Euclid and Mensuration, Standard VI and Book-keeping.

Optional.

(5) Science—Science Primers, Chemistry, Botany and Agriculture.

or

Drawing—as for the 1st Grade Art.

or

Manual Training.

I may explain in conclusion that I have made no attempt to devise an ideally perfect scheme for the U. S. F. I have looked at the scheme from a practical point of view and have given you a rough sketch of the line, in which in my opinion, the scheme should be revised. You will admit that as matters stand the U. S. F. course is a nuisance. If it could be done away with altogether, well and good. If not, I would devoutly wish that an effort might be made to lessen the incompatibility of the two courses which, at present, have to be taught side by side to the distraction of the teachers and pupils, an enormous waste of teaching power and the intellectual crippling of so many hopefuls

I beg to remain,

Dear Sirs,

Your most obedient servant,

G. J. AGASHE,

Head Master.

University Affairs.

Convocation has come and gone and the titles and designations of a certain number of students are the longer by a degree. Evidently by taking thought one can add to one's status if not to one's stature. For let us trust that these additions (we use the word in the Shakespearian sense) really will elevate their recipients and serve them as constant reminders of what their university and their country expect of them. What that is they will have learned from the eloquent address of the Vice-Chancellor. Taking for his subject "Leadership" in general and as a particular illustration of it the life of William Ewart Gladstone, the Hon. Mr. Justice Candy delivered an oration of far more than mere academic interest. In the first place it was a worthy encomium of the mighty dead, and higher praise the speaker will not desire. In the second, following the example of a not less famous funeral speech, and the practice of that Athenian orator and statesman whose unsurpassed magniloquence every High Court judge will confess, the while he seeks and not in vain, to rival it, our Vice-Chanceller wove from the central meshes of his abstract theme golden lessons of practical utility. Thirdly, he enforced those lessons by a searching diagnosis of the ills which afflict the composite society that the union of east and west has produced. His text was, briefly, an enlargement of the Aristobelian dictum, that he is the best citizen who knows both how to rule and to be ruled and is prepared to take his turn at either as circumstances may demand. To be able to obey is a necessary condition of ability to lead and the aim of all education should be to train such as may be fit up to the latter through the former. Discontent may be divine, but her divinity malific and destructive rather than creative and beneficent. The discipline of obedience, ay, even of unwilling obedience, is a higher moral factor than the license of discontent. The hour brings with it self-restraint and a reserve fund of intellectual, ethical and practical power ; the other squanders itself in futile murmuring of feverish and profitless agitation. The present circumstances of Indian society and politics are in many ways anomalous, but the remedy is not to be sought in a haughty contempt for all the institutions of the older order and a servile and unreasoning adoption of the new, nor yet in a prejudiced or hysterical re-assertion of mediæval barbarisms, and least of all in a factious opposition to the established powers. First, therefore, let our future leaders learn to submit, not abjectly nor as of compulsion, but in a spirit of willing obedience and temperate criticism. Then let them with the growth of experience and the wisdom that experience brings, compare the old and the new and judge for themselves what is worthy and what is not. Conclusions thus arrived at they may test by the opinions of other ages and other countries and then perhaps the time will have come for their pupilage to cease and strong in justified convictions they will be entitled to take their place as leaders of their fellow-citizens. Those whom the univerisity delighteth to honour and whose birth and training have afforded them the means of insight into the problems both of Eastern and Western civilizations are the persons to whom their countrymen should naturally look as leaders, but lead they must not till they realize the responsibility that leadership entails.

One of the most interesting features of convocation is that it generally marks the first (and we regret to add sometimes the only) appearance of the new fellows at a University meeting. The list this year is, we venture to think, above the average of distinction, local though that distinction be. The Bishop of Bombay is an ecclesiastical authority whose high position of itself should be sufficient claim to a seat on the senate, but united as his dignity must be with the learning of a British university the claim becomes in this case a right. The potency of a more worldly power is borne witness to in the cases of Sir J. Jejeebhoy and Messrs. Moses and Hydari, all of whom worthily represent " the high finance " of Bombay in one or other of its varied aspects. Medicine has its representatives and Law its representatives ; the proportion no doubt is just. The cause of muscular and practical Christianity is recognised in the appointment of the Venerable Archdeacon, and the graceful culture of one the most literary of civilians has received its due in the nomination of Mr. W. P. Symonds. Thus reinforced by recruits from the Church, the world, and Parnassus the Senate may perhaps in future devote some of the time that it can spare from the culture of logistics to the furtherance of genuine higher education.

An indication of improvement in this direction may be found in the proposals to reconstitute the M. A. examination. The history scheme has already been discussed in these pages, and we will now let sleeping dogs lie. The philosophy proposed is set forth in detail by Prof. Sharp, and a very good scheme it is though prehaps we say it as should not. An amendment (in a section) is appended by Father Bochum and another of a sweeping description by Mr. D. G. Padhye. Mr. Sharp's scheme is, to a large extent, modelled on the plan of the philosophy part of Greats (the final Honour examination) at Oxford. This is particularly visible in the papers dealing with the history of philosophy, and in the selection of the books of certain authors such as Green, James and Caird. Father Bochum's amendment evidently aims at re-adjusting the balance by the inclusion of books by writers of his own persuasion and of a more pronounced Catholic tendency. In so far as the particular books he recommends are not professedly sectarian there is no overpowering objection to them, but we confess that we look on the principle which underlies the advocacy of these authors and their work with strong disapproval. If all the books of all the creeds or all the *ologies* are to be permitted for study the latter state of the student will be indeed parlous. Yet if one Church may insist on the choice of books to suit her own tenets why should not all? Christians, Jews, Turks, Heretics and Infidels we have them all in Bombay, but the University should try to avoid favouring any religious sect as such.

Mr. Padhye's amendment supplies a want. Logic explicitly has no place in Mr. Sharp's scheme, and this we cannot but feel to be a defect. On the other hand, we certainly would not sweep away the essay to insert logic. The former we regard as absolutely essential. The latter might very well be given as an alternative paper to that on psychology. We should, however, like to see better books recommended for study; for example we suggest Lotze's two little volumes and Bosanquet's Logic instead of Sigwart and Venn. As for Mill (except by way of use as the drunken Helot), he should have been relegated to the B. A. and the Intermediate. One other omission there is of which we must take notice, *viz*, that of "Political Philosophy" This is a subject which the merely historical student is incapable of dealing with as it deserves and which (though of course it entails a certain amount of historical data) may be treated with great advantage in an abstract fashion. Personally we are inclined to think that such a study would be of the greatest advantage to Indian youth and that it should be obligatory in a philosophical course. If this is not possible, it might at least come in as another alternative to psychology. For the books we would recommend selections from Plato's Republic and Laws, Aristotle's Politics, Tacitus's Germania, " The City State of the Greeks and Romans," by Warde-Fowler, certain parts of Baden-Powell's " Indian Village Community, " and also selections from Maclennan's works on early institutions as well as parts of Hobbe's Leviathan and Rousseau's social contract together with Locke's Civil Government. Modern writers such as Sidgewick and Bryce would also be of use. No mention of this year's convocation can close without a reference to the untimely death of the gallant soldier whose presence had graced similar meetings on previous occasions. Few would have believed that General Nairne's journey home was to be the prelude to that longer and stranger journey which awaits us all. Yet so it has proved, and his country is the poorer for the loss of a brave and skilful leader of men, and this University's distinction is the less by the severance of a connection which must ever have been to that body a source of honour and congratulation. Not less unfortunate for the interests of higher education in Bombay is the demise of Sir Louis Kershaw. Had he been blest with life and health the late Chief Justice would naturally have taken a prominent part in academic affairs, and it must be a ground of lasting regret that he has been removed after so brief a sojourn among us.

Bombay University Terms.

Those who have not been actually nurtured in the atmosphere of the University of Bombay are apt to be perplexed to discover the origin and object of some of its provisions. Prominent among these sources of wonder stands the arrangement of the University Terms, and their relation to the season of the University Examinations. That the subject is best with difficulties owing to circumstances of locality and climate, and other special conditions, is admitted: but it will hardly be maintained that these difficulties have been met in the most practical manner, or that the best has been made of the situation.

While the indirect influence of the University on the education of its students is very great, its direct share of the work is very small. It recognises that success in passing its examinations is not a sufficient qualification for its degrees, and insists that all candidates shall have first passed through certain prescribed courses at recognised Colleges. The courses are essential, but the choice of the seasons at which they should be followed is largely a matter of indifference, and depends mainly on considerations varying with the locality. It is therefore incumbent on the University so to arrange its terms as to suit all the colleges affiliated to it, or, if their interests cannot be reconciled, to allow individual colleges a certain amount of freedom to arrange the periods of instruction so that they may work to the best advantage.

Even if we were to grant that the existing arrangements are the best that can be devised for Bombay itself, it is very certain that they do not suit colleges in other parts of the Presidency. Take for example the case of the Sind College, where both the College board and the common room have unanimously agreed that some modification in the University Terms is urgently called for. Let us follow the career of a student who has joined, say the Previous Class in January. About the middle of April his first term is over, and, in three cases out of four, he leaves Karachi, where the days are still reasonably cool, for his home in the Mofussil, where the weather is now getting hot. Here he remains till the second week in June, and returns to Karachi to rejoin his class just in time to come in for nearly two months of the hottest and most unpleasant weather of the year. Here if he does not assimilate all the substance of the lectures, he at any rate collects formidable piles of notes. About the middle of September his college work closes, and his most serious labour commences, for he has now but seven weeks in which to "make up his deficiencies," and to get the matter contained in his note-books and text-books into such a state that it shall be presentable to the Examiners in November, whatever may happen to it in December. Having to travel 500 miles by sea for his examinaiton, and to face the inconveniences of *mal-de-mer* and of house hunting, he usually leaves for Bombay in October, and comes in for about a month of the muggiest weather that city can provide. His examination begins the first Monday in November, and a fortnight after this, almost before he can return to Sind, the first term of his next session begins, despite the fact that if at any time during the year he requires relaxtion and rest it is now. Though the University denies these to him with its right hand, it mercifully provides them with its left, for he will not be allowed to know whether he has passed his Previous Examination till about the middle of December, and so till then will not know whether to rejoin the Previous Class or to proceed to the Intermediate course. In the unusual event of his desiring to anticipate the result, he will not find any serious work being done in either of these courses in any College in the Presidency, as, however willing any of the Professors may feel to give him a little special assistance, they know that their instruction would all have to be repeated a few weeks later to the main body of the Class, and thus their efforts would be in a measure wasted. By the time that he knows his fate it wants but a single week to the Christmas recess, and he naturally feels that it is hardly worth while to undertake a double journey from Hyderabad or Shikarpur for so little, even if a class has been formed, so he stays away till the College is reopened in January. His career as an Intermediate student is similar; and in fact it is only in the higher classes that any real work can be done in the first part of the first term and as very often half the staff may at that time be examining at Bombay for the University, or engaged on other duty, the practical result is that no real College work is done from the middle of September to the beginning of January. Further, as has been pointed out, the seasons in which the most serious work is done, are not, for Sind is at any rate, those in which the conditions of climate are most favourable for work.

In considering in what direction any amelioration of the existing conditions should be attempted, it is obvious that the predominant factor is the season fixed for the holding of the University Examinations. It is open to question whether November is really the last month for these ; but if it is decided that it should be retained it is obvious that the first term of the next Session should not commence till the following January. In Sind at any rate it would be convenient to prolong the first term till the end of April, and to defer the commencement of the second term till the end of June, and its close till the beginning of October. This would have the salutary advantage of curtailing the period for the "making up of deficiencies" after the cessation of College work. It would imply a clear summer vacation of two months, and a winter vacation, tempered by examination work, of three months, including Christmas. And as the terms would be entirely periods of real work these vacations would be fairly earned, and indeed necessary for the intellectual elasticity of all parties concerned.

Elastic Words.

A great deal has been written, and by very serious persons, on the capacity which the English language possesses of adopting and assimilating words from foreign languages. To this power is ascribed much of its versatility and vigour. But English has another feature, which I venture to think even more characteristic, though it is one of which, for obvious reasons, your serious-minded grammarian or 'smelfungus' philologist fights shy. As a science, the extraction of verbal roots seems to be about as exhilarating as dentistry, and the comparative method, when applied to philology, has resulted in the formulation of 'laws' besides the complicated inexplicability of which the most abstract of mathematical propositions pales. Nor is it really very illuminating after struggling through mists of evasive aspirates and shifting diphthongs to emerge suddenly in the blaze of a sun-myth and to be left *planté lá*. The only possible comment for the commonplace person in regard to a sun-myth is that his ancestor *must* have been a fool if he couldn't make up a better yarn than that. But it is a little hard on the ancestor to take him at the valuation of a philologist: he could not have been such a fool, as, according to the philologist, his speech bewrayeth him to have been. The purveyor of well-dried roots and stems, the *verbalist*, if I may coin a term, is too often devoted only to the sere and yellow specimens of speech imprisoned in the pages of his note-book. He can analyse their structure with the precision gained by years of linguistic dissection, he knows their genus, species, and variety, he can reel you off their habitat, their characteristics, and their 'sports,' and yet be wholly careless of the ways and whims of the living article.

It is, indeed, no idle metaphor which represents some speech as living and other as dead. And the vitality of a language will manifest itself in its spoken words, in the variety of their forms and the versatility of their powers. Whence it follows that to realize the vital vigour of any tongue, we must not seek the living among the dead, nor limit ourselves merely to literary monuments.

The ordinary intercourse of every-day life will present processes of language-formation, of the growth and development of words, far more numerous and not less interesting than those to be found in grammatical and philological hand-books. In the former instance we catch

Nature at work (for Nature makes *words* just as much as she makes men and beasts); in the latter we but survey the ghoul-like labour of linguistic corpse-snatchers, men who disinter, for the purposes of their dissecting room, the mouldering frameworks of words outworn. Nature makes words, I have said, and I might have added, that she makes them better than any one else, that is, if she intends them to survive. Sometimes she tries experiments, and, after creating two or more kindred forms, leaves them to their fate. One will be taken and the other left: the survivor has adapted itself better to the conditions of life and abides, because it is, under the circumstances, not intrinsically, the superior. In some cases words are ushered into the world through the midwifery of learned men, but this august entrance on to the mortal scene does not exempt them from the laws to which their humbler fellow-words are subject. Nay, it has not been uncommon in the struggle for life for a word 'of learned origin' to suffer the indignity of displacement at the hands of some common term of purely popular breeding. An interesting example is even now being worked out under our very eyes. The pedantic person still insists on speaking of *telegram*, which, by the way, he is always careful to distinguish from *telegraph*. But the less refined popular voice, little caring for long words and classic syllables, and still less for troublesome distinctions, has emancipated itself from their tyranny and elected the brief and more incisive '*wire.*'

The superior person will pass by on the other side with the sniff contemptuous if he be asked to patronize what he condemns as 'slang.' The logical grammarian will quibble querulously as to the impossibility or absurdity of dictating, writing or reading 'coiled strips of metal,' which, he will add severely, is the proper meaning of the word *wire*. He will say "*the word*, wire" in just the same way that the reporter of a police-case talks of a person arrested on suspicion as '*the man*, Jones,' and with the same half deliberate purpose of prejudicing the accused's case. And yet the hapless suspect does him no wrong, and is not more illogical than the grammarian himself, who, perchance, "scores the tricks" at his nightly rubber without a qualm. Nor does it better matters if, having no case, we turn to abuse and denounce the word as 'slang.' What is and what is not slang are not particularly easy questions to decide, especially in regard to conversation. In any event, this use of the word is not slang in the same way that a common use of 'blooming' is, or that words like 'socker,' 'jaw,' and 'core' are. The usage is popular, but not vulgar, and there is a vast distinction between these two adjectives. As to slang in general, one might say that the problem hinges upon the harmony of a word with its surroundings. It may be slang in one context, and not in other. Thus, in certain styles of speech or writing, to speak of the sympathetic communion which may exist between two kindred spirits as the "telegraphy of souls" would be to employ a metaphor not wholly inconceivable. But try to substitute the word 'wiring,' and the phrase becomes not merely impossible, but ridiculous. We feel intuitively that *wiring* here is slang, yet when we write 'wire reply' or 'wait wire,' we have no such feeling. Some words there are, of course, which, like some people, would be inappropriate anywhere. I do not refer to indecent or profane expressions—these are the criminal classes of verbal society, and are fitted only for summary suppression —but simply to words of vulgar inanity. Of these not a few belong to the suburban middle-class, and are the outcome, not of a genuine popular attempt at new modes of expression, but of the bastard humour of self-styled comic and sporting papers. Coinages, such as 'oof' and 'spoof,' have no intrinsic value or interest, meet no felt linguistic want, and carry with them no associations, save of stale tobacco-smoke, flaring pot-houses, and the generally nauseous atmosphere of that world in which the city clerk amuses himself.

But to return to the word *wire*. The usage above referred to is interesting on another account, in that it exhibits what may be called the 'elastic' powers of the English language. This elasticity or versatility English seems to possess far in excess of the old classical languages, and also beyond other modern languages. French has its 'argot,' but the words of this are practically the words of a different language. Most nations have their cant or slang. Nevertheless none possess to the same extent the power of stretching the possibilities of a word's application. The connection may get finer and finer with each new usage, but it seldom or never wholly breaks. And the word itself will still remain within the pale of decent society and ordinary conversation. The extensions are not, as in the case of Americanisms, due to a peculiarly dry form of humour which delights in quaint metaphor and startling incongruities. Some of them, no doubt, are metaphorical, but their end and aim is not the metaphor nor the pleasure which the metaphor may afford. They are severely practical, and aim simply at greater suitability of expression. The power of a word to put forth these new shoots is a good test of its vigour; the number of such words in a language will be in proportion to the vitality of that language—and, lastly, the linguistic vitality is no slight index of the national vitality. The forms may be found in all stages of acceptance. Many are undoubtedly 'slangy,' if not actually slang; some are received in one context, but debarred in another; a few have fought their way into even literary recognition.

Instances are plentiful. Take *score*. The word is used classically to mean 20 things or persons collectively. Originally it meant a cut or notch—in particular, a set of 20 notches indicating items in a bill or account. Hence we can say "on that score"=on that account, and we can 'call for the score' when we mean our bill. Hence, too, we speak of keeping the score at cricket, as likewise of 'scoring a run' (*i.e.*, of marking it down on the account, so to say, of runs). So far, all these usages seem permissible. But what of the term 'to score off' and such a phrase as 'I scored off him fairly?' Properly, "to score off" should mean to 'cut or hew off.' But the modern phrase has no obvious connection with the proper usage. The explanation is that the cricketing application of the word, noted above, has been extended to produce a very useful term for which no good synonym will readily occur. To make a large score (or a great many runs) in cricket off an opposing bowler's bowling is by superior skill to put him to a certain amount of humiliation and to cause him a good deal of disgust. It also entails a great advantage for one's own side. Hence 'to score off' means to get the better of any one, especially in a contest involving dexterity, while 'to score,' in the sense absolute, is to gain advantage for one's self or party. It is further implied that with the fact of defeat will be coupled the feeling of disgust. But, notwithstanding the undoubted utility of these new phrases, the ban of slang is still upon them. A similar word is *bag*, in the sense of to get, acquire, generally (it must be admitted) by force or fraud. Here the anomalies of acceptance are still more pronounced. The sportsman may boast of the brace he has bagged, but his small son will probably be rebuked for using slang, if he complains to his father that "that beast Jones minor has bagged my new knife." The equivalent term *pouch*, though of far less frequent occurrence, has a certain clientêle of classical authorities in its favour. Yet the school-boy's bag (which *per se* is as good as pouch) has none.

Another very interesting word, though not one, I fear, of unimpeachable position, is 'rag.' This has nothing, I think, to do with the name *rag*, meaning a shred or piece. Rather it comes from an old Elizabethan word of which we find examples in Shakespeare, *i.e.*, "bully rook," a roisterer, a noisy swaggering jovial person. In its intermediate form the word appears as 'bally rag' meaning to upset, disturb. The ingenious youths of our English Universities have, with laudable economy, divided the word into two integral portions, of which the first serves as an adjective of general condemnatory force, the second as a 'portmanteau' verb. Thus to rag=to create a disturbance, to upset a peaceful person's equanimity, to make a noise, to break furniture, and generally to give vent to exuberant spirits in any boisterous manner. Hence it comes to mean to tease, to play tricks upon, and even to scold or rebuke. A Don may be said to *rag* an under-graduate, and the latter in revenge may *rag* the Don's rooms; but the ragging is not one and the same in both cases. Though undoubtedly slang, the word is not without its uses, and its superior elasticity has enabled it, to a certain extent, to displace the the older and more approved *row*.

Many other similar words occur, but space will not allow of their detailed treatment here. I suggest for consideration, *treat, draw, rot, back, show, and coach.* All of these have legitimate literary uses, but, in addition, also, accepted conversational connotations, which may or may not be reckoned as slang, according to circumstances. Yet, whether slang or not, these developments must be acknowledged and reckoned with, in order to the attainment of a real knowledge of spoken English. Perhaps, in a future paper, their utility may be demonstrated.

Education Scheme for the Talpurs of Sind.

Fifty-six years have now passed since Sir Charles Napier conquered the Amirs of Sind at the battle of Miani, and since that battle the Amirs have been living quietly in small villages on the east of the Indus as pensioners of the British Government. The Amirs were Baluch Talpurs, who had conquered Sind in the eighteenth century, and it is interesting to note the change produced in these warlike Baluchis by half a century of inactivity. The Amirs—or Mirs—who remained in Sind were all granted large pensions by the British Government, and their sons were allowed to take the title of Mir. They were treated, and always have keen treated, with every mark of respect by British Officers in Sind, but the fact remains that the Talpurs have degenerated to no small extent since their occupation of fighting has been taken from them.

Those who have read the books on Sind, written in the early part of the present century, will remember that the Mirs are spoken of as being superbly dressed, possessing splendid jewels and expensive weapons, while their generosity to their followers was lavish in the extreme. The show and generosity was kept up by means of oppressing the lower classes and extorting every possible rupee from them. When this power of extortion was taken away from the Mirs, they could not at once give up all their old and expensive habits, and consequently the majority of the Mirs very soon were heavily in debt to the Hindoo money-lenders. This was the first downward step taken by the Talpurs. They found themselves unable to cope with the money-lender according to their old methods; they were ashamed to give a true account of their debts to the British Government, and were, above all, afraid that their family jewels would be taken from them to pay their debts. Consequently they, to some extent, hid themselves from the British Officers in Sind and brought up their children in an atmosphere of false pride, idleness, and improvident extravagance. At last the attention of the Commissioner in Sind and the Collector was attracted to the conditon of the Mirs by the money-lenders, who wished to collect their loans. It was then found that the numbers of the Talpurs had increased surprisingly, that their debts were out of all proportion to their pensions, and that very, very few of the young Talpurs had any education worth the name. Worse than this, the old proverb, that

'Satan finds some evil still
For idle hands to do,'

had unfortunately come true in the case of the young Talpurs, many of whom were reported to be not only lazy but vicious. The Commissioner in Sind then decided that these boys should all be educated, and some small schools were opened near some of the villages in which the Mirs lived.

These schools have not done very much. The Talpurs, as a whole, know nothing of discipline or of regularity, and as the most important people in the place it was hardly to be expected that their sons would tramp regularly to school day after day throughout the year.

It was then decided to build a separate school for the Talpurs, at some place easy of access from all the villages inhabited by them. At this school the Talpur boys would receive an English education, similar to that given in the Government High Schools. Owing to the appearance of plague and the consequent lack of funds, this school was never built, but meanwhile the plan for the education of the Talpurs was developed, and it was finally resolved that the boys should go to school in Karachi at the Mahomedan school already existing there. To this scheme the Mirs made many objections. Karachi was a long way from the homes of any of the Mirs; the climate of Karachi was very different to the dry climate of Upper Sind. In fact, the Mirs showed a good deal of alarm when told that their boys should go away to a boarding school at a distance from their homes under the charge of a European. They were afraid that their sons would not be treated either as Mirs or as Mahomedans, and that their health would suffer both from change of climate and lack of attention. In December 1897, the Commissioner in Sind (the Hon'ble Mr. James, C.S.I.) called a meeting of the Mirs at Sukkur, and explained to them in person what he wished to do with the boys. He explained that in the first place the Mirs would be asked to pay for nothing. The Talpur boys would be taught, fed, and clothed at the expense of the Government, and that even their travelling expenses would be paid. He told them that their religion would be carefully looked after, as there was already a Shia mosque and a Shiah Moulvi in the Karachi school. The boys would he accompanied by some of their own servants, who would be paid by Government, so that the boys would get exactly the same attention that they did at home. If any boy showed sufficient promise, he would, after leaving school, be sent to the University by the Government, and started in any profession he might choose. The other boys would be given land if their conduct was satisfactory, but in no case—and on this point the Commissioner was very firm—would the boys be supported in idleness, as an experience of fifty years had shown that plan to be unsuitable to the real welfare of the Mirs. The result of this meeting was that thirteen Talpur boys came to the Madressseh in Karachi in January 1898; and after a good many petty objections raised by the parents and servants had been settled, the boys entered quite naturally into the life of the school. They did not mix much at first with the other boys, but this was owing more to the influence of their servants than to their own exclusiveness. Unfortunately plague appeared in Karachi in March, so the Talpurs went back to their villages, until September. A fresh start was then made, and the boys went home again in December for their Winter holidays.

They came back to the school in January only to be driven away again by plague in February, although the boys have been such a short time in the school, they have been there long enough to show that some of them possess a considerable power of work and application, and that the generous scheme drawn up by the Hon'ble Mr. James, will in all probability turn the energy of the warlike Talpur into some really useful channel. The advantages offered to the boys are patent to all educated men. The removal from a small village where the "Mir Sahib" reigns supreme to a large school in a large town, will do away with the ridiculous false pride of the boys. On the other hand, to a Talpur who is in the least proud and ambitious, a field is offered where he can really distinguish himself.

It is in fact hard to imagine what the Government could do more for the boys than to carry out the Hon. Mr. James' idea. Instead of living in semi-barbaric state in a dirty village a Talpur now has the whole world laid before him, and if he is unfit for or does not choose a public life, he can remain in Sind as a well-to-do landowner. A change in the Talpurs generally will not of course be effected at once by this or any other scheme, but of all possible schemes the one proposed by Mr. James and adopted by the Government seems to be the one which will in time bring back respect to the name of Mir and bring gratitude from the descendants of the conquered Amirs to the British Government.

The Teachers' Association of Bombay.

I.

A general meeting of the Association was held at St. Xavier's College (Esplanade), on Thursday, the 6th October 1898, at 5-15 P. M. Mr. James MacDonald, the President, was in the chair. The following subject was introduced for discussion by Messrs. V. S. Sohoni and M. K. Patel, B.A:— "Should Competition be encouraged in School Education, and, if so, within what limits?" The use of competition as an incentive to study was recognised by most of the speakers. It was pointed out that as competition prevails everywhere in life, it would be uneducational and unwise to shut it out of school. At the same time, the dangers of over competition were not ignored. Competition was never to be allowed to interfere with the spirit of mutual helpfulness which it was one of the principal aims of education to teach. The subject of "encouragement" was also touched upon by the essayists and speakers. Marks, scholarships, and prizes, as aids to the work of education, were passed in review. It was made clear in the course of discussion that encouragements to study ought not to be so numerous as to obscure the truth that the object of study is not the gaining of prizes or scholarships, but the acquisition of knowledge. Several of the speakers deprecated an unfair practice prevalent in some schools in which prizes and scholarships were given to "favourities" or were taken by "arrangement" amongst the pupils.

N. G. WELINKAR,
Honorary Secretary.

II.

A general meeting of the Association was held at St. Xavier' College (Esplanade), on Friday, the 20th January, at 5-15 P. M. Mr. James MacDonald, the President, was in the chair.

Miss M. Hunt, M.A., B.SC., read a paper on "Education and Professions." The following is a summary:—

(1) Education in a sense is a means to a specific end, *viz.*, business or profession.

(2) For the attainment of this end a broad substratum of training in "handiness" is absolutely necessary.

(3) A "narrowing" or differentiation, according to aptitudes, circumstances, and demands, must follow.

(4) There is a particular training subserving each of the professions.

(5) While it is not possible to give this training in the ordinary school, a certain standard of all-roundedness must be attained.

Of this all-roundeness "handiness" is an important part.

An animated discussion followed, in which the one-sided literary character of the present system of education was deplored by some of the speakers. Herbart's saying "that the fruit of education is virtue" was quoted. Commenting on it, the Secretary observed that virtue is a practical quality to be manifested in the ordinary relations of life, and that a citizen who had been trained to earn an honest livelihood was, in so doing, bringing forth the fruit of virtue. Among the valuable suggestions made by the Chairman one was that the teacher's aim should be to make his class feel that their struggles in later life would be but a reproduction of their struggles in earlier life, only on a larger scale ; and that thus the teacher can make the school a real preparation for life.

The Secretary stated that since the last general meeting, the Director of Public Instruction had asked the opinion of the Association with reference to a scheme of Secondary Teachers' Examination. As a very early reply was required the subject could not be brought before a General Meeting of the Association, but the Council had given it earnest consideration and had cordially recommended the scheme, suggesting a few modifications.

The following is one of the papers read before the Association.

N. G. WELINKAR,
Honorary Secretary.

(*The following is one of the papers read before the Association.*)

SHOULD COMPETITION BE ENCOURAGED IN SCHOOL EDUCATION?

The question whether competition should be encouraged in school education is one which requires mature deliberation to answer satisfactorily. No one can deny that the competitive system of instruction adopted in our schools and colleges, enables the best men to come to the front, who otherwise would be lost among the mediocres. The young man who is able to acquire a command over a language, or a mastery over a science, is, in ninety-nine cases out of a hundred, the product of competition. Without the stimulus of rivalry his intellectual powers would probably have remained dormant. Although it is doubtless true that many young men of not more than average intelligence, have distinguished themselves in the fields of literature or of science, as a general rule, the ability to master a language or a science is associated with considerable intellectual powers. Even supposing that a knowledge of books is not always the result of intellectual ability but is, in most cases, the fruit of industry, this latter qualification is not to be despised in a man who has to fight the battle of life; but whether industry, or great mental capacity, is chiefly instrumental in the production of men of great literary scientific attainments, one thing is absolutely certain that no man ever made a mark in the world of letters without the stimulus of competition; and until the human mind can devise a better system of education than the competitive system, competition must certainly be encouraged in school education.

It is objected to the competitive system that the majority of the successful candidates in an examination are mere book-worms altogether impractical. There is certainly very great force in this argument; but the admission merely amounts to this, that, like all other systems, the competitive system of school education is imperfect. Instances are on record of men who had not distinguished themselves either in their school or college careers but who afterwards achieved great fame in the field of literature or science. These cases illustrate the exception, rather than the rule, and show that while it is possible, sometimes, for the better man to be overlooked and neglected and for the worse to obtain degrees and carry off prizes and medals, in the great majority of cases the unsuccessful candidates in an examination are decidedly inferior to the successful ones. Thus competition is necessary for school education. But it must be encouraged within certain limits. The difficulty is in defining those limits. Unlimited competition is liable to foster selfishness among scholars, and it also tends to destroy that kindliness of feeling, that mutual sympathy, that desire to forgive and be forgiven which ought to exist between young men learning at the same school. It also begets dishonesty. Youths well brought up at home, when brought face to face with their rivals in their class over whom they naturally desire to triumph, hesitate too little to take unfair advantage of their fellows. In this there is great danger of harm to the moral character of boys, against which every conscientious master thinks it his duty to protect his pupils. This he can effectually do only by frequent remonstrances against dishonest practices; and secondly by impressing upon the minds of his pupils the fact that the gaining of marks in an examination is not the be-all and end-all of education. It is my firm conviction that the best thing to do is to minimize, as far as possible, the importance of that book, so awe-inspring to trivial boys, known as the Scholar's Register of Daily Marks. It performs a dual function, and it is a puzzling question as to whether it is the student's friend or his enemy.

Another and perhaps more ruinous result of unrestricted competition is the complete break down of the health of many boys. Excessive competition in a class leads to overwork in the case of ambitious students. In my humble opinion there are two remedies for this end:—(1) To make the most sparing use of the Scholar's Register of marks; and (2) Not to care so much for the quantity as for the quality of the work they do in their classes. As regards the first, more than this need not be said that while a few of our students love knowledge for its own sake, the great majority of them seem to believe that knowledge is to be pursued for the sake of marks and prizes. The teacher who always relies upon his scholars' Register in encouraging them to study and who cannot make his teaching such that his scholars may feel an interest in their lessons, without being offered a bribe in the shape of marks, is a man who has quite misunderstood his profession. I speak strongly on this subject because I feel strongly. In the second remedy suggested by me against the evil of over-work, I raise the question as to whether the head of a scholastic institution should insist upon his masters going through the whole course of studies prescribed for a term. All good educationists have long since recognised the fact that school instruction cannot be both sound and large in quantity at the same time. The object of study is to discipline the mind. The exact amount of knowledge which is at any one time in the mind of a student, is not, and need not be, very great.

The simile employed by Quintilian to show the folly of teaching children too much at a time is this:—" Pour water hastily into a vessel with narrow neck, little enters; pour it gradually, and by small quantities—and the vessel is filled!" The planting of an idea properly in the mind of a boy is a work of time, and the teacher who boasts that he can teach the largest number of lessons in the shortest possible time is precisely the one who teaches the least. If it be true that he who plants a blade of corn in a spot which was barren before is a benefactor of his species; how great a benefactor of the human race is a teacher who plants an idea properly in the mind of his scholars. "If you form but a handful of wise men," said the great Julian, " You do more for the world than many kings can do." The success of a school depends upon the talent and tact of the teachers; the best system of education is lifeless in the hands of an incompetent teacher. A good teacher must be allowed by his employers the greatest freedom in the fixing of the course of studies for his pupils, the selection of books, the method of imparting knowledge, etc.

The conclusion to be drawn from my remarks is that although a competitive system of school instruction is necessary for efficient education, it is not without its accompanying disadvantages, and should be encouraged in school education only within narrow limits.

M. K. P.

Educational Notes.

The Bengal Report on education for 1897–1898 has appeared, but is strikingly devoid of interest. We learn that of all boys of school-going age, 27·8 per cent. are at school, but of girls only 1·9, the percentages having fallen somewhat heavily since the previous year. The decrease is due to a certain extent to the natural disaster of plague, earthquake, and famine that have visited Bengal. These particularly affected the primary schools which are attended largely by Musulman pupils; consequently Mahomedan education is reported as retrograde. And not in respect of primary schools only, since in training schools and private institutions Musulman effort seems to have been relaxed.

* * *

A still more serious feature, of which special notice is taken in the Resolution of Government, is the list of grave breaches of discipline contained in this year's report. Three cases of assault, with violence, on masters, many of tampering with registers and certificates, and one of flagrant immorality are specified. On the other hand, the number of grave offences seems to be reduced as compared with last year, and the effort to create and maintain a good moral tone among scholars has not been without success. But, as the Lieut.-Governor is made to remark, "much still remains to be done." The Bengali Babu should not be a very difficult person to quell, and if discipline can be maintained on this side among Marathas and Rajputs without any great difficulty, we do not understand why a similar degree of firmness should not (if unhesitatingly and continuously applied) produce the same results on the Bengal side. Possibly, the *personnel* of the Bengal school staff wants stiffening.

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The solitary matter of general interest touched upon by the Report is the question, whether payment by results is to be preferred in India to the more liberal English system in which grants assessed upon 'passes' have been discontinued. Theoretically there is no doubt but that Mr. Pedler, who raises the question, is correct: the 'results' system is mechanical, degrading, and all but positively immoral. On the other hand, as the Director, Dr. Martin, points out (obviously enough) England is not India, and it is not safe to assume that the latter country is ripe for the reasoning liberal-minded practice in vogue in the former. And (which is a clincher) Mr. Pedler's new system would cost twenty lakhs intead of four. The last argument, naturally, scores with Government, though, even so, the reviewer of the Report admits that in the abstract there is much to be said for Mr. Pedler's views. In any case, he adds wearily, it doesn't seem to matter much, since, as far as he can see, the Director's and his opponent's conclusions come to much the same thing! We wonder when it will be considered advisable to post an Educational expert at the elbow of the reviewing Secretary.

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The Central Provinces Report has also to deal with a year of almost unexampled distress, but it finds that the decline in educational agencies and institutions was, under the circumstances, surprisingly small. The worst decline, in fact, is limited to those remote districts where the inhabitants "*mutuo metu separati et montibus*" (as the scholarly Director aptly cites) have little intercourse with each other, and are suspicious of Educational officers (and most others) even in times of plenty. During the famine, when food was brought to their very doors, these wild hill-folk and aborigines refused to eat it, partly from superstition, but chiefly, it is to be feared, from what the Americans call 'cussedness.' A decrease was noticeable in other districts of course, but in the Northern Circle this did not go beyond a decimal figure, and in the Southern and Eastern it was not nearly so high as might have been expected. How far this was due to the exertions of the Educational officers concerned, the Report (*more suo*) refrains from stating. It cannot, at any rate, be put down to the spontaneous affection of the people for education, since many of them still believe that reading makes the eyes fall out, while even officials tend to consider it merely as a fad of the Government. A people so prejudiced that it needs persuasion to be brought to eat during times of famine is not readily to be persuaded to learn: and, again, the Director deviates into the classics, "*Tantum religio potuit suadere malorum.*"

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That there is, however, something in the objection of the people to the education provided for them comes out clearly in the remarks made by the Commissioner on the Report. The cultivating classes complain that this new-fangled learning deprives them of the assistance of children in field-labour, unfits the boys for agricultural pursuits, and causes them to despise the good old customs of their fathers. They aspire to be Munshis and to undertake clerical rather than manual work. There is undoubtedly much compulsion brought to bear to get such children to school, and their parents not unnaturally look on school attendance as a new species of Government *begar*, and secretly resent it accordingly. The remedy, it is thought, lies in the creation of a separate primary course for rural schools in which 3 hours' book-work a day is done, the rest of the time being available for field-work. 'The idea is not without strong recommendations,' but it should be remembered that the cultivators are not the only classes to make these complaints and to claim such concessions. Exactly the same grumblings may be heard from artisans and even from bunnias. And if one section obtains a limited immunity, the rest are sure to clamour for it, and where are we to stop ? What rather seems indicated is a reconsideration of the whole system of primary education —which is, if not absurd, at any rate impossible at present.

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Among minor details of interest in the Central Provinces' Report are the substitution of native exercises (*Deshi Kasrat*) for European gymnastics in Vernacular schools throughout the provinces, the introduction of a system of "pot-gardening" in the schools of the Southern Circle, and the continued sucess of "the local Eton" at Raipur, under the able conduct of Mr. Oswell. The Engineering School is flourishing and owes much to the interest taken in it by the chief authorities of the P. W. D. The Nagpur Agricultural School, which in previous years had proved somewhat of a disappointment, has shown signs of improvement. This is due to the more promising openings now held out to students who pass through its course and to the institution of a scholarship connecting it with the Poona College of Science and the Bombay University. The Church of England Zenana Mission and the Free Church Mission are responsible for the most successful work in female education, having achieved good results where other agencies have failed, *i.e.*, among the Marathi-speaking population.

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We have spoken of a "local Eton" in the Central Provinces, but, of course, we are aware that such an institution is not peculiar to those favoured, if somewhat remote, territories. Bombay has one of its own at Rajkot, and on a still more important scale. It should therefore be especially gratifying to Bombay educationalists to receive unofficial, yet, at the same time, authoritave, testimony to the good work which its Rajkumar College is doing. Nawabzada Nasrul Khan, in a striking book which he has just published on the Ruling Chiefs of Western India, not only strongly supports the English system of education adopted in the College, but advocates its extension. He would have the institution widen its scope and receive not only the sons and kinsfolk of chiefs, but also any youths of aristocratic, though not of princely, birth, who may be eager to take advantage of the excellent training given to their princely brethren. Thus, the sound and wholesome discipline of English public-school life would be brought to bear upon a large circle of native youths, and the good that it confers would "broaden downward" and strengthen and elevate the life of a far larger section of native society. Difficulties in the way of caste may be overcome or "worked round." The writer was himself a pupil at the college, and though his views may seem over-sanguine, he, at any rate, affords ample evidence of the utility of the institution and of the way in which its results are appreciated by the native community.

CALCUTTA UNIVERSITY.

The address of its new Chancellor, delivered before the Convocation of the Calcutta University, contains much material for comment and still more for consideration. It was perhaps as remarkable for what it did not say as for what it did. Expected to ban, the new Viceroy arrived to bless—in a very mitigated form, it is true. But still he did find some points for approval even in our Indian Universities, which evinces at least His Excellency's own liberal culture. But then was he not of Balliol and of the inner and most select circle that sat at the feet of "The Master"? Two rather curious, though to the student of men and manners, not very surprising consequences, have resulted from his oration. First that Lieutenant-Governors and persons of similar distinction now go about the country congratulating it on the evolution of a University system particularly fitted for the country's needs, and wondering that so much ill-considered and hasty obloquy has been heaped upon bodies so patently admirable. Secondly, that the restless inquisitiveness of the common or vulgar journalist has ever since been enquiring what *else* the Governor-General's speech portended. Thus the *Civil and Military Gazette* makes up its mind that we are in for an imperial educational bureau with a real Minister or Secretary and separate portfolios and such other things of joy and beauty all to itself. The same paper even thinks it its duty to warn the Viceroy that his idea will not prove *practicable.*

We do not know whether the idea is impracticable or no. Many things that ought not to be practicable can be and are put into practice. But we venture to think that the C. M. G. is a little previous. So far as we can discover all that Lord Curzon intended to convey was, that the matter of education is too important to be intrusted to an already overburdened Civilian who may know nothing and, personally, careless about it. But this is a long step from the erection of yet another bureaucratic tier in that theatre of the gods in which is played the drama of Indian administration. What is wanted, is not more centralization but more expert advice. The ordinary details of educational finance are not beyond the cognizance of the highest revenue official, and they could still be safely left in the hands to which they are at present entrusted. But esoteric knowledge of educational needs does not spring from the mere handling of figures, nor is it a necessary concomitant of such experience of justice, prisons, chaplains, drains and local scholastic institutions as may have been picked up in a Civilian's varied career. Why should not some one possessing the necessary width of theoretic and practical knowledge on the subject be from time to time "caught up" from the various provincial administrations? Translated to a higher sphere his special training should be of the greatest service in directing the counsels of the supreme government. An additional member of the Viceroy's council whose function would be the consideration of educational questions and who should be chosen from the most qualified members of the various local educational departments, would seem to be all that the present conditions really indicate as essential.

* * *

A meeting of the Governing Body of the Poona Native Institution was held in the Dustoor Hall on Thursday, the 6th of April 1899, at 9 a.m. The following business was transacted :—

(*a*) It was resolved to send a letter to Mr. Aston, requesting him to become a member of the Governing Body, in place of the Hon'ble Mr. W. H. Crowe.

(*b*) The statistical returns to be submitted to Government were passed.

(*c*) The budget for the next year was approved.

(*d*) Professor N. Fraser was elected chairman for the next year.

(*e*) Temporary reduction on account of the plague was sanctioned.

⁂

Rao Bahadur Sitaram Vishvanath Patvardhan, B.A., is said to have retired from Government Service from the 15th instant.

He gradually rose from the Deputy Educational Inspectorship to the Directorship. Like his predecessors Rao Bahadurs Dandeker Narayan Bhai and Shri Ram Bhikaji Jatar, M. A., who are now in the retired list, Rao Bahadur Patvardhan ably and satisfactorily discharged the onerous duties of the Directorship of the Berar Educational Department. Mr. Candy is reported to have succeeded Rao Bahadur Patvardhan. As Messrs. Mahajane and Sahasrabudhe are left out, the native press is against the appointment, but like Dr. Sinclair, the father of the Educational Department of Berar, Mr. Candy would soon remove the temporary discontent by his characteristic good will towards natives.

⁂

Mr. A. T. Shuttleworth, Conservator of Forests, after a long, faithful and meritorious service left Poona for England to enjoy his well-earned pension on the 6th of April 1899. He had encouraged many deserving students of the Forest Class attached to the College of Science, Poona.

College Correspondence.

DECCAN COLLEGE.

The demolition of the tower has commenced; and, to all appearance, we shall have to reconcile ourselves to its absence for some time.

The Debating Society has heard papers from B. V. Deshmukh on "Want of Energy among our Young Men"; from S. R. Gokhale, on "Our educated Young Men"; from G. A. Taljapurkar, on "Dnyaneshwari" (in Marathi); and from P. Dambe, on "The kind of Patriotism to be expected from Students."

A Religious Society has been founded for the purpose of hearing weekly addresses on religious topics. It is open to students of all creeds, the only condition of addresses is that they shall contain no controversial matter. A new paper, "The Deccan College Weekly," has appeared. It is written out and posted up for public perusal; it consists chiefly of letters from various Members of the College.

The Essay Society has heard a paper from V. M. Kulkarni on "Education in the Bombay Presidency 1877—1891." The writer compared the numbers of institutions to pupils in these two years, and added a number of criticisms on education at present. He pointed out that the village schools are unpopular, and often filled by pressure put on the parents; the subjects taught are unsatisfactory; the pupils ought to receive instruction in practical subjects, such as Botany or Veterinary Science. The High Schools have not the same effect on the character as English Schools have, and it is worth considering whether boarding schools could be establisbed in this country. Collegiate education is still expensive, costing Rs. 300 a year as an average minimum. The College course is "too exclusively academical." The pay of teachers in general is too small, and their prospect not sufficiently *encouraging*. A considerable amount of discussion followed the paper.

The anniversary was celebrated on March 24th. It was not so largely attended by old members of the College as it ought to be, which will, we hope, be remedied in future. The programme for the day included boat races in the morning, and a football match in the evening. Prof. Sharpe delivered an address on "Liberal Education." There was a performance of King Lear by members of the College in the evening.

The College closed on March 28th. This was rendered advisable by the desertion of a large number of students who took leave before the Easter holidays on the ground of plague and other pretexts. We think it very likely (and desirable) that these students will regret their proceedings next November.

[Correspondence is invited from other Colleges.—ED., *B. E. R. & L. J.*]

Correspondence.

DEFECTIVE EYESIGHT IN SCHOOL CHILDREN.

To the Editor, "Educational Record."

Dear Sir,—I have seen the articles on the "Eyesight of children" in the *Educational Record*, sent for my perusal. I was acquainted with Dr. Bradnell Carter's paper and with several of his writings on the subject. I also studied the matter in the publications of other English writers, such as Lawson, Rochdale, Allport and others, as well as in the contributions of the French and German oculists in the *Annales Oculistique* and the *Clinique Ophthalmologique*—to both of which I am a collaborateur, and in the *Archives von Graafe*, etc. My own experience has led me to believe that want of attention on the part of responsible persons to this subject has marred the prospects of many a one, who was disabled from earning his livelihood simply because the natural or acquired defects of sight were not early detected and corrected. The investigation into the refractive defects of the eye in children at an early age is of vital importance to the children themselves, for if those defects are not corrected in time, their infantile brain must be brought to bear a severe strain which is apt to cause convulsions, and to render an otherwise brilliant intellect dull and stupid; and children, who otherwise might be useful citizens in after life, will be deprived of their prospects in their careers, whether literary, professional, or as artisans. Many accidents occur both on the railways, and on the sea, simply as the result of defective sight in the watchman, and a number of railway and ship officers have been discharged and thrown helpless on the world from having defective sight. Convulsions, stupidity, and other dire results of defective sight in the students have been cured by correcting the defects with suitable glasses. Instances of this sort have come under my observation.

Having studied this subject for the last twenty-eight years, I attempted to draw the attention of the authorities both in a public manner, when I delivered the Lord Reay Lectures in 1895, and again read a paper before the Grant Medical College Medical Society, and privately writing to the heads of various schools and colleges and also to Educational Inspectors about it, but no one took any interest in it. Even the Hon. Mr. Kirkham wrote to me to say that everything possible had been done in the schools to prevent or correct those defects!

One should consider it a serious matter, worth while attending to, when so large future interests are at stake, and when miserable results can be prevented by timely assistance. The defects of sight may either be congenital or acquired, but both must be corrected in time, and the latter wholly prevented. Children get those defects chiefly in Elementary Schools, where they acquire certain habits of position while reading, or more especially while writing. It is not so much the light that is thrown on the desk of the children that is at fault, as the various postures they are allowed to assume in the schools. For instance, a peculiar bend of the shoulders, of the neck, of the spine, the location of the arms, the position of the seat while writing, determine the defect or correctness of the ocular gymnastics.

Thousands of children are intellectually fed here, but when it is brought to the notice of those concerned, that defective education causes, to some extent, positive harm to the children,—as statistics collected in Europe and America have proved,—it is time that means should be employed to prevent such evil results. It will require hard and prolonged labour to obtain reliable statistics. Such statistics, as were supplied to me, and which I had printed along with my Lord Reay Lectures, can be taken only for what they are worth, because they are the observations of untrained men, and, at most, may indicate manifest defects, and probably corrected ones, from the use of spectacles by the students. To obtain reliable information it will be incumbent to take some such measures as the following:—

1st.—Children should be examined as to their eyesight at their first admission into the Elementary Schools, and with appropriate appliances.

2nd.—Children should be examined periodically, say once in six months.

3rd.—Instructions to children, as to the distance of holding their books and papers while reading and writing, should be enforced.

4th.—Periodical inspections should be held to observe the attitudes of the children while reading and writing.

5th.—The students in the High Schools and Colleges should also be periodically examined for similar purposes.

In many American cities special oculists are employed for this purpose. It is to be hoped that the Municipal Corporation, and the Government of Bombay will take this matter into their serious and favourable consideration.

I may venture to say, that unremunerated labour in this direction will only be worse than useless, for to do the work satisfactorily, one must devote to it a good deal of his time.

This subject ought to be of great concern to the parents of the children, and not less to the teachers themselves, for it will be a sorry predicament to the parents to find, when it is too late, that all their anxieties and expense have been borne, only to be disappointed in the results, not on account of any want of attention and diligence on the part of the children but merely because a preventible defect of sight was not attended to in time ; and to teachers, that some of their bright students have gradually grown hopelessly dull from similar causes. The teachers themselves would do well to subject themselves to a periodical examination of their eyes, because by this precaution many inconveniences to themselves and to the pupils will be avoided.

I have given here, very cursorily, my views on the subject, but you may think it worth while to send them to the *Educational Record* for publication.—Yours, etc.,

ACCACIO DA GAMA,
Chief Surgeon to the Eye and Ear Dispensary, etc., etc.

Books Received.

We have also received the following new books and new editions, some of which will be noticed later :—

Messrs. George Bell & Sons—Early English History to 1066, with illustrations, by J. Williamson. 1*s*.

A Shilling Arithmetic, by Charles Pendlebury, M. A., and W. S. Beard, F. R. G. S. 1*s*.

Bell's Reading Books—Robinson Crusoe, by Daniel Defoe. 1*s*.

The Swiss Family Robinson, by J. R. Wyass. 1*s*.

Selections from the Arabian Nights, re-written from the original English Version of Dr. J. Scott for use in Schools, by George C. Baskett. 1*s*.

Messrs. A. & C. Black—Les Gaulois et les Francs, PAR F. B. Kirkman, B. A. (Oxon), ET J. M. A. Pecontal. 1*s*. 3*d*. net.

A Geography of Africa, by Lionel W. Lyde, M.A., F.R.S.G.S. 1*s*. net.

Messrs. Blackie & Son—The Media of Euripides, with the Lyrical Parts done into English (Introduction, Notes, and Vocabulary), by P. B. Halcombe, M.A. 1*s*. 6*d*.

Charles Kingsley and the Christian Social Movement, by Charles William Stubbs, D.D. (Victorian Era Series).

Macaulay's Essay on Milton, edited with Introduction and Notes, by John Downie, M.A.

The First Oration of Cicero against Cateline, with Introduction, Exercises, and Vocabulary, by Charles Haines Keene, M.A. (Dublin).

Landmarks in English Industrial History, by George Townsend Warner, M.A.

Selections from Addison's Spectator, &c., with Introduction, by Mrs. Barhauld. Edited by Mrs. Herbert Martin.

Typee: a Romance of the South Seas, by Herman Melville. 1*s*.

Blackie's Arithmetic for Course B, Standard I. 3*d*.

Blackie's Arithmetic for Course B, Standard II. 3*d*.

The Raleigh Geography Reader VI. 1*s.* 9*d.*

A New Sequel to Euclid, in 3 Parts, by W. J. Dilworth.

A New Sequel to Euclid, Parts II. and III., by W. J. Dilworth.

The Newton Object-Lesson Hand-book, Part I. 1*s.* 6*d.*

Vere Foster's New Copy Books, Medium Series, 1, 2, 3, 4, 5 and 9*s.* 2*d.* each.

Messrs. William Blackwood & Sons—Foreign Classics for English Readers—Edited by Mrs. Oliphant. 1*s.* each.

Tasso, by E. J. Hassell.

De Sevigne, by Miss Thackeray.

La Fontaine, by Rev. W. Lucas Collins, M.A.

Schiller, by James Sime, M.A.

The Elements of Physical Education, a Teacher's Manual, by David Lennox, M.D., and Alexander Sturrock. With original musical accompaniments to the drill by Harry Everitt Loseby.

The Fourteenth Century (Periods of European Literature Series, Part III, Edied by Prof. Saintsbury, by F. J. Snell. 5*s.*

Cambridge University Press—Russian Reader, Lermontof's Modern Hero, with English Translation and Biographical Sketch, by Ivan Nestor-Schnurmann. 8*s.*

History of Scotland, Vol. I., to the Accession of Mary Stewart, by P. Hume Brown, M.A., LL.D. 6*s.*

The Resourcess of the Sea, by W. C. McIntosh, M.D., LL. D., F.R.S. 1*s.*

A History of the Colonization of Africa by Alien Races, by Sir Harry H. Johnstone, K. C. B., English Maps by the Author and J. G. Bartholomew. 6s.

Oxford Clarendon Press—The Junior Euclid Books I. and II., by S. W. Frim, M.A., Practical Works in Physics for use in Schools and Colleges, by W. G. Woolcombe, M.A.

Mr. A. M. Holden.—The Art of Writing English, a Manual for Students, with Chapters on Paraphrasing, Essay-writing, Précis-writing, Punctuation and other matters, by J. M. D. Meiklejohn, M.A. 2*s.* 6*d.*

Messrs Longmans, Green & Co.—Longman's Ship Literary Readers—Introductory Reader. Standard I. 8*d.*

Picture Logic, by Alfred James Swinburne, B.A. 2*s.* 6*d.*

An Introduction to the Differential and Integral. Calculus and Differential Equations, by F. Glanville Taylor, M.A., B.Sc. 9*s.*

Elementary Physiology, by Benjamin Moore, M.A. 3*s.* 6*d.*

Messrs. MacMillan & Co.—Macaulay's Essays on Milton, with Notes, Abstracts, Chronological Summaries, &c., by H. B. Cotterille, M.A. 2s. 6d.

Vor Dem Sturm, Roman Aus Dem Winter, 1812, Auf 13, Von Theodor Fontane. Edited by Aloys Weiss, Ph.D. 3*s.*

Byron, Child Harold's Pilgrimage, Cantos I. & II., by Edward E. Morris. 1*s.* 9*d.*

Byron, Child Harold's Pilgrimage, Cantos II. & III., by Edward E. Morris. 1*s.* 9*d.*

P. Virgili Maronis Æneides, Lib XI. Edited for the use of Schools by T. E. Page, M.A. with Vocabulary, by the Rev. G. H. Nall, M.A. 1*s.* 6*d.*

Cinq-Mars, Par Alfred de Vigny. Adapted and edited by G. G. Loane M.A. 2*s.* 6*d.*

Messrs. George Phillip & Son—Philip's New Handy-book of Composition Exercises, Typical Letters, Subject for Essays and Letter-writing.

Messrs. Isaac Pitman & Sons—Pitman's Elementary Manuals of Business Training.

Mr. W. D'Silva—First French Course, with numerous exercises specially written for Beginners and to meet the requirements of Candidates for the Primary School Examination for European Schools (Bengal).

Messrs. Smith, Elder & Co.—A Life of William Shakspear, by Sidney Lee, with Portratits and Facsimiles, Third Edition.

The Superintendent, Government Printing, Calcutta—Veterinary Series, No. 27.

The Agricultural Ledger, 1898, No. 18. [Dictionary of Economic Products, Vol. V., O. 551-94]. The Breeds of Cattle in the Central Provinces, Notes by Veterinary-Lieutenant A. S. Trydell, Supdt., Civil Veterinary Department, Central Provinces. 2 Annas or *2d*.

Vegetable Product Series, No. 45 (Food Substances). The Agricultural Ledger, 1898, No. 19. Indigofera Sp. (Wild indigo) [Dictionary of Economic Products, Vol. IV., I. 121-36]. Wild indigo seed as a Famine Food in Bombay and Berar. Report on the results of Examination of the Seeds, at the Research Department, Imperial Institute. By Professor A. H. Church, M.A., F. R. S. Other Dictionary article that may be consulted—Famine Food, Vol. III., F. 32. Price, 2 Annas or *2d*.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
19th September 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. GILES,
Director of Public Instruction.

The subjoined memorandum with accompaniment is published for the information of Educational officers.

Poona, office of the Director of Public Instruction, 18th March 1899.

E. GILES,
Director of Public Instruction.

Printing.—

Sample of symbols for making corrections in proof.

GENERAL DEPARTMENT.
No. 80.
Bombay Castle, 9th January 1899.

MEMORANDUM.

The Superintendent, Government Central Press, is requested to reprint the sample of a corrected proof submitted to Government with his office No. 1928, dated the 11th September 1875, which shows all the proper symbols for making corrections in a proof together with the explanation of such symbols, and send 10 copies to all officers to whom he submits proofs and 20 copies to each Department of the Secretariat. It is also requested that a sufficient number of copies may be kept in stock for supply to Heads of Offices according to their requirements.

R. B. STEWART,
Acting Secretary to Government.

Instructions to be observed in the correction of Proof Sheets supplied from the Government Central Press (vide Government Memorandum, General Department, No. 80, *dated 9th January* 1899).

Where a word is to be changed from small letters to capitals, draw three lines under it, and write *caps* in the margin.

The following figures denote the explanation noted against them, with illustrations on the reverse :—

1. The substitution of capital for a small letter.
2. The marks for turned commas, which designate extracts or quotations.
3. The insertion of a hyphen.
4. The substitution of a small letter for a capital.
5. To change one word for another.
6. To take away a superfluous letter or word, the pen is struck through it and a round topped *d* made opposite, being the contraction of the word *dele*, 'do thou expunge.'
7. A letter turned upside down.
8. The insertion of a word or letter.
9. The substitution of a comma for another point, or for a letter put in by mistake.
10. The substitution of a ; for another point.
11. When words are to be transposed, two ways of marking them are shown; but they are not usually numbered, unless more than three words have their order changed.
12. When a paragraph commences where it is not intended, connect the matter by a line, and write in the margin opposite *run on*.
13. To draw the letters of a word close together that stand apart.
14. The marks for a new paragraph.

15. The substitution of a period or a colon for any other point. It is customary to encircle these two points with a line.

16. Where a space or a quadrat stands up and appears, draw a line under it, and make a strong perpendicular line in the margin.

17. Where there is a wrong letter, draw the pen through that letter, and make the right one opposite in the margin.

18. The transposition of letters in a word.

19. The mark of a space where it has been omitted between two words.

20. The manner of marking an omission, or an insertion, when it is too long to be written in the side margin. When this occurs it may be done either at the top or the bottom of the page.

21. When one or more words have been struck out, and it is subsequently decided that they should remain, make dots under them, and write the word *stet* in the margin.

22. When a letter of a different size from that used, or of a different face, appears in a word, draw a line either through it or under it and write opposite *w.f.*, for 'wrong fount.'

23. Marks when the letters in a word do not stand even.

24. Marks when lines do not appear straight.

25. The mark for the insertion of an apostrophe.

Where a word has to be changed from Roman to Italic draw a line under it, and write *Ital.* in the margin and where a word has to be changed from Italic to Roman, write *Rom.* opposite.

To change a word from small letters to small capitals, make two lines under the word and write *sm. caps.* opposite. To change a word from small capitals to small letters make one line under the word, and write in margin *lo. ca.* for 'lower case.'

Where the compositor has left an out, which is too long to be copied in the margin of the proof, make a caret at the place, and write opposite *Out, see copy.*

The specimen, when corrected, would be as follows:—

It is sublimely declared in the Christian Scriptures, that "God is Love." In truth, to figure to ourselves under any other character a Being of infinite wisdom to conceive, and power to execute his designs, would appal the imagination of his dependent creatures. Neither can we find, in reasoning *à priori*, and from the nature of things, any foundation for believing that the misery rather than the happiness of those dependent creatures can be desired or devised by a Being who cannot possibly be actuated by any of the motives from which we know that injustice proceeds, as ignorance, selfishness, or partiality; and who can have entertained, so far as we are able to discover, no other object in creating man, except the intention of finally communicating a larger proportion of happiness than misery. These are the principles from which is deduced the necessity of justice and benevolence in the Creator.

Arguments of this nature will have more or less effect, according to the constitution of the mind to which they are presented. At the same time it must be conceded that the works of God, generally considered, from the best criterion of his intentions; and that, however indisputable the eternal truths may be which render goodness inseparable from power and wisdom, there still remains a reasonable inquiry, how far the actual appearance of the world justifies this conclusion.

It is sublimely declared in the
christian Scriptures, that God is 1 C/ ‘‘/ 2
love. In truth, to figure to our- ’’/ 2
selves under any other char- H/ 3
acter a Being of infinite wisdom
to conceive, and Power to ex- p/ 4
ecute his designs, would appal
the ~~mind~~ of his dependent crea- 5 imagination/
tures. Neither can we find, in
reasoning a priori, any founda- ital/
tion for believing that the
misery rather than the happiness M/ 7
of those dependent creatures
can be desired by a being who 8 or devised/ 1 B/
cannot possibly be actuated by

20 and from the nature of things,/

any of thee motives from which δ/ 6
we know that injustice pro-
ceeds as ignorance, selfishness, ,/ 9
or partiality and who can have ;/ 10
entertained, as we are able so trs/ 11
far to discover, no other object
in creating man, except the in-
tention of finally proportion a trs/ 11
communicating larger of happi-
ness than misery. run on/ 12

These are the principles 13 8
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justice and benevolence in the
Creator. Argnments of this new para or ¶ 14
nature will have more ~~or less~~ stet/ 21
effect according to the consti-
tution of the mind to which 15 1
they are presented at the same ⊙/:/ A/
time it must be conceded that 22
the works of God, generally w.f./ 23
considered, form the best cri- =/
terion of his intentions, and 16
that however indisputable the ▮/
eternal truths may be which ren- 24
der goodness inseperable from 17 a/
power and wisdom, there ~~will~~ δ/ 6
still remain a reasonable inquiry, 8 ∂/
how far the actual appearance 18 ua/
of the world justifies this conclu- #/ 19 25
sion.

The subjoined rules regarding the admission of students into the Grant Medical College are published for the information of Educational Officers.

E. GILES,
Director of Public Instruction.

Poona, 1st April 1899.

Grant Medical College.

Rules for admission of Matriculated Students and others to the courses of Study at the Medical School of Bombay.

1. From and after the 15th of November 1899 selected Matriculated Students of the Bombay University, or of some University recognized by it, who have passed the Matriculation Examination with a Classical language, and who may wish to graduate in Medicine, shall, with exceptions hereinafter stated, be admitted to the general course of instruction in Grant College on payment of the following fees :—

STATEMENT OF FEES TO BE PAID.

MATRICULATED STUDENTS.

1. An entrance fee of 25 Rupees.
2. A Fee at the rate of 12 Rupees per mensem for 12 months in the year, to be paid in advance at the beginning of each Session.

EXCEPTION A.

Occasional Students (Matriculated or not).

Casual students, *i. e.*, persons who may wish to attend Hospital practice or a course of lectures on any one of the subjects enumerated under Lists B and C below, shall be privileged, upon a payment of Rupees 30, for any one course of lectures under B; Rs. 20 for any one course under C; and for six months' attendance in any of the Wards mentioned in List D the fee is Rupees 40 :—

List B.

Descriptive and Surgical Anatomy.
Practical Anatomy.
Chemistry.
Practical Chemistry.

Physiology.
Materia Medica and Practical Pharmacy.
Pathology (including *post-mortem* examinations).
Medicine and Clinical Medicine.
Surgery and Clinical and Operative Surgery.
Medical Jurisprudence and practical Toxicology.
Midwifery and Diseases of Women and children.

List C.

Comparative Anatomy.
Botany.
Biology.
Ophthalmic Surgery.
Hygiene.

List D.

The Medical Ward,
" Surgical "
The Obstetric Ward.
" Ophthalmic "

Out-Patients.

All fees to be paid in advance.

The Winter Session of Grant College will commence on the 15th November. Candidates who may wish to enter the College on that date are requested to communicate with the Principal on or before the 10th November and must forward a Certificate of having passed the Matriculation Examination of a recognized University with a Classical language, duly signed by the Registrar.

The summer Session commences on 15th June.

Memo.—The selected Matriculated Students of the year 1899-1900 will be allowed to enter College from the date of their having passed.

N.B.—Students who intend to go to England for Diplomas must have passed in Latin or an Oriental Classical language.

(Signed). W. K. HATCH, F. R. C. S. (Lond.),
Lieut.-Colonel, I. M. S.,
Principal.

Grant Medical College,
Bombay, 15*th March* 1899.

E. GILES,
Director of Public Instruction.

The subjoined Government Resolution, Financial Department, No. 436, of the 28th January 1899, is published for the information and guidance of Educational Officers.

E. GILES,
Director of Public Instruction.

Poona, 13*rd February* 1899.

Letter Scales manufactured at the Postal Workshop at Aligarh.

Increase in the price of—

No. 436.

FINANCIAL DEPARTMENT.

Bombay Castle, 28th January 1899.

Resslution of the Government of India, Finance and Commerce Department, No. 27-S.R., dated 6th January 1899:—

" READ—

Letter from the Director-General of the Post Office of India, No. 44—99-s. I., dated the 21st December 1898.

No. 44—99-s. I., dated 21st December 1898.

From—The Director-General of the Post Office of India.

To—The Secretary to the Government of India, Finance and Commerce Department.

With reference to Government Resolution No. 2119, dated the 2nd May 1890, a copy of which was received with your letter No. 2765-S.R., dated 2nd July 1892, regarding the manufacture and sale of letter scales by the Postal Workshop at Aligarh, I have the honour to report, for the orders of Government, that in consequence of the revision in the inland letter postage rates from 1st October 1898, as published in Government Notification No. 3979-S.R., dated 9th September 1898, it has been decided that the scales manufactured at the Postal Workshop should in future be provided with the weights noted in the margin instead of those now in use. In consequence of this the cost of manufacture has increased by 2 annas. The price of the letter scales, with sets of tola and ounce weights supplied to other Government Departments requiring them, will now therefore be Rs. 6-4-6, inclusive of packing charges, but not of carriage.

½ tola.
1¼ tolas.
3 "
4 "
6 tolas
9 "
12 "

2. I beg that this change may be notified for the information of those concerned.

ORDER,—Ordered, that copy of the letter be forwarded to the several Departments of the Governments of India and to all Local Governments and Administrations for information, in continuation of the Resolution of this Department, No. 2119, dated 2nd May 1890."

RESOLUTION.—Copies of the Resolution of the Government of India should be forwarded to all Heads of Offices under the several Departments of the Secretariat for information in continuation of Government endorsement No. 2127, dated 21st June 1890.

G. W. HATCH,
Acting Under-Secretary to Government.

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1. The following new books and fresh additions are now available in the Library:—

2. The Library and Museum are open to the Public every Saturday from 7 to 11 A. M. (Bombay Time), and on other days by arrangement with the Curator.

3. See notice in *Record* for February 1887, page 44.

R. D. PRIOR,
Educational Inspector, C. D.

Poona, 15th March 1899.

Author.	Title of Work.	Publisher.	Price.
			£ s. d.
	Class 6 :—Arithmetic.		
Pendlebury and Beard.	A Shilling Arithmetic ...	G. Bell & Sons.	0 1 0
	Class 25 :—English Language &c.		
Daniel Defoe ...	Robinson Crusœ	Do.	0 1 0
J. R. Wyss ...	The Swiss Family Robinson ..	Do.	0 1 0
	Class 29 :—French.		
E. C. Goldberg, M. A.	Mon Oncle et Mon Curé ...	MacMillan & Co.	......

Author.	Title of Work.	Publisher.	Price.
	Class 33 :—*German.*		£ s. d.
T. H. Bayley, M. A.	Vom Erasten Bis Zum Letzten Schuss.	Do.	......
	Class 38 :—*History & Biography.*		
	Early English History to the Norman Conquest.	G. Bell & Sons.	0 1 0
	Class 50 :—*Miscellaneous.*		
Mary Harrison..	The School Cookery Book ...	MacMillan & Co.	0 0 6
A. G. Bell ...	Speech-Teaching in American Schools for the Deaf.		
G. G. Hubbard.	The Story of the Rise of the Oral Method in America.	W. F. Roberts.	......
A. Gilman, M. A.	Miss Helen Adams Keller's First Year of College Preparatory Work.	Gibson Brothers.	......
	International Reports of Schools for the Deaf.	Do.	......
	The Difference between the two Systems of teaching Deaf-Mute children the English Language.		......
A.G. Mashburn.	Some Differences in the Education of the Deaf and the Hearing.		......
A. G. Bell ...	Methods of Instructing the Deaf in the United States.	Gibson Brothers.	......
	Class 64 :—*Science.*		
E. R. Lush ...	Lessons in Domestic Science, Part II.	MacMillan & Co.	0 0 6
V. T. Murché...	Object Lessons in Domestic Economy, Vol. II.	Do.	......
G. F. Stout, M. A.	A Manual of Psychology, Vol. I.	University Correspondence College.	0 4 6
Briggs and Bryan.	The Tutorial Dynamics ...	Do.	0 2 6

List of appointments in the Educational Department from the 16th February to the 15th of March 1899.

13th February 1899.—Mr. Kashinath Ganesh Behres, Sub-Overseer, is appointed Assistant Master in the College of Science.

9th March 1899.—Mr. G. S. Joshi, 1st Clerk, Training College, Poona, is appointed Superintendent of the Boarding House attached to the Poona Training College, *vice* Mr. R. R. Sathe, retiring.

11th March 1899.—The following appointments are made in the Telang High School, Godhra, from the commencement of the next term:—

Mr. M. M. Bulsari, B. A., 4th Assistant, Ahmedabad High School, and *sub. pro tem* 3rd Assistant, Broach High School, to be 1st Assistant.

Mr. J. G. Gokhale, B. A., 1st Assistant, Telang High School, Godhra, and *sub. pro tem* 5th Assistant, Nariad High School, to be 2nd Assistant, but to continue at Nariad.

Mr. B. M. Mehta, 2nd Assistant, Telang High School, Godhra, and *sub. protem* 3rd Assistant Deputy, Surat, to be 3rd Assistant, but to continue at Surat.

Mr. B. K. Pandya, 3rd Assistant, Telang High Schools Godhra, and *sub. pro tem* 2nd Assistant. in the same, school, to be 4th Assistant.

Mr. R. V. Desai, 7th Assistant, Surat Middle School, and *sub. protem* 3rd Assistant, Telang High School, Godhra, to be 5th Assistant.

Mr. A. H. Mahadevia, 4th Assistant, Telang High School, Godhra, who is lent to Deesa School, to be 6th Assistant, but to continue at Deesa.

Mr. V. C. Desai, 5th Assistant, Telang High School, Godhra, and *sub. protem* 4th Assistant, in the same schools to be 7th Assistant.

Mr. D. C. Satyawadi, 6th Assistant, and *sub. pro tem* 5th Assistant, Telang High School, Godhra, to be 8th Assistant.

Poona, Office of the Director
of Public Instruction,
18th March 1899.

E. GILES,
Director of Public
Instruction.

The Manager has to acknowledge receipt of the following Subscriptions paid subsequent to the issue of receipted Bills :—

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253	26-9-99	The Head Master, Middle School	Veraval	1-3-99
255	26-9-98	Do. do.	Wanthli	20-3-99
256	26-9-98	Do. do.	Kutyana	29-3-99
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349	13-4-99	The 1st Asstt., Depy. Eductl. Inspector	Bijapur	29-3-99
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DANIEL LAZARUS, B.A.,

Principal, L. M. H. School, Vizagapatam; and Examiner, Madras University.

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This work gives in language comparatively clear and simple a very fair account of the history of this country. The book will be found most useful to pupils of the 2nd and 3rd Forms of all Anglo-Vernacular Schools.—*The Indian Journal of Education,* October 1896.

In its present form it should have a popularity greater than ever. The Book is on right lines; and it is encouraging to think that the pupils in our schools are likely to have so good a grounding in Indian History as books like this are calculated to give them.—*Christian College Magazine,* November 1896.

The author's part of the little work seems excellent, and from the educational point of view it is a book from which a student might learn with pleasure and profit.—*The Madras Times,* 22nd March 1897.

The little volume is thoroughly up to date.—*The Madras Mail,* 22nd March 1897.

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The Bombay Educational Record and Literary Journal.

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Vol. XXXI.] MAY 1899. [No. 11.

Schools of Art in India.

Among the records of State, published by the Government of India, is a small volume recently issued, the subject of which is the maintenance of Schools of Art in India as State institutions. Until they have read this, few people will understand the dire confusion which seems to have beset the official mind as to the meaning of the word 'Art' and the exact functions of a School of Art. Nor will they realize how very near a noble Secretary of State at home came to eradicating, at one stroke of the pen, all public and declared interest in Indian art, in so far as that interest might be held to emanate from the British *raj* as such. The plain uncompromising utilitarianism of the British Philistine is a thing more often talked about than seen, but in these papers it reveals itself in all the naked brutality of its kind. As but one instance of the extraordinary denseness which seems to be characteristic of certain types of English (and Scotch and Irish) intellects in regard to this subject, we may mention that it was found necessary to emphasize the distinction between 'Art' and 'arts,' and, furthermore, to explain *totidem verbis* that 'industries' was a term not synonymous with either. The practical outcome of such Philistinism had been the inclusion of *farriery* in the curriculum of a so-called School of Art!

In November 1893 the Earl of Kimberly, then Secretary of State for India, wrote to Lord Elgin, then Viceroy of India, that there was "a general consent that Schools of Art in India served no really useful purpose," and that the considerable expenditure on them from Imperial revenues was, in his opinion, unjustifiable. Observe the practical bearing of it all, so many pounds, shillings, and pence expended, and in return so many maunds of art produce to be the outcome. Verily, if the products of art could be weighed and sold like so many pounds of sugar or butter, this is the true spirit in which to encourage the artist. Again, the object of education in India is to provide the masses of the country with "useful and practical knowledge," and since native arts can be easily and *cheaply* taught by private native artisans, it would be infinitely better to spend money on a practical and eventually remunerative scheme of Technical Education, and to let Art shift for herself. It is a remarkable note of true Philistinism, and one peculiar, we fancy, to European civilization in these latter days, that it should be deemed necessary to exclude Art from the sphere of the *technites* (the arts-man, or artizan). The separation would have been intolerable to the ancient Athenian worker, to the medieval craftsman of Florence or even England, and, we may add, till very recent times, to the native Indian labour of the bazaars. We ourselves have spoken above of a distinction observable between 'Art' and 'arts,' and of a difference which exists between these and mere 'industries.' A recognition of this distinction and this difference is essential to a true comprehension of the nature of Art, and should not be very difficult of attainment. The common measure of the industries is their utility: the *telos* of Art is the expression of the Beautiful. In neither sphere need the one object exclude the other, but one must necessarily be predominant. Thus in farriery, the object—we say it with all due deference to official pronouncements—is simple utility, not the expression of Beauty, whereas in drawing or painting the worker aims at the Beautiful, which, in this case, he will find to coincide with the true, and so to be also, in a sense, useful. Many activities of human life allow of the cultivation of the sense of beauty, together with a close adherence to the idea of producing something which is 'useful,' *i.e.* (for this is, after all, only what 'useful' in this context means), advantageous to the preservation of physical life by means more or less materialistic. And these we may call 'the arts': each will be more thoroughly an art in proportion to the truth with which it expresses the objectively beautiful. Hence, if any person wishes to deal with the teaching of Art or of 'arts,' it is very necessary that he should first of all arrive at a just comprehension of the connection existing between them and of their relation to other human activities.

The want of a careful analysis of this kind, and, still more, the inability to see the need of such analysis, has lead the British Philistine on the one hand to confound industries and arts, and, on the other, to oppose the teaching of Art to "Technical" Education. A sounder view will entail the discovery that mere industries as such are not suitable items to be included in the curricula of schools of art, and that those arts in which the banausic and utilitarian element triumphs over the artistic are better left outside, at least until others of a higher artistic value have received full attention. Yet these subordinate and humbler arts have in them, at any rate, potentialities of beauty, and if they are allotted to the sphere of what is called Technical Education, it is not that they may be rendered still more vulgar and banausic as the price paid for increased practical utility. It is desirable that Indians should learn to imitate the thoroughness and finish of European workmanship, and even to appreciate, where possible, the advantages of machinery; it is not desirable that they should imitate European designs in preference to native ones, or cultivate a taste for aniline dyes. Technical Education should cultivate the good, and guard against the bad, among those tendencies which the native worker displays, and in so far as it does so, it becomes in part a teaching of Art, without, at the same time, being exactly identical with such teaching.

But to proceed. The immediate outcome of the Earl's letter was a conference held at Delhi in 1894, at which, among others, Lieutenant-Colonel Hendley, the Honorary Secretary of the famous Jeypore Museum, the Principals of the Schools of Art at Calcutta, Lahore, and Bombay, and the D. P. I. in the Punjab were present. Colonel Hendley, as President, delivered an address, in which he touched upon the degradation of Indian art. The main cause, in his opinion, was that Indian art was becoming commercial. It was bought by the ton and the gross. There was little scope for the exercise of taste or inventive power on the part of the artist, and that element of time, which once had been so lavishly given, was now reduced to a minimum. The dealer now directed the workman, and the workman's taste and originality; the dealer catered for the tourist, and the latter's ignorance was only more pretentious and gullible than the former's. In other times, the collector had gone himself into the houses and workshops of the makers and had secured genuine work, or he had picked up articles in actual use, which he might have persuaded the owner to part with at a price. Nowadays, the tourist is in a hurry: he has come to hunt either beasts or impressions, to get snap-shots with rifle or camera, and he can only afford time to buy his "curios" or "documents" (in the modern slang) at the port of entry or departure. Naturally, he seeks the dealer who has heaped together, in one indiscriminate mass, such things as will most readily attract his notice and suit his taste. Thus the genuine connoisseur no longer feels attracted to Indian art, and the experienced collectors of Europe will have none of it.

But there are other causes of decay, and these were brought out very forcibly by Mr. Griffiths, the head of the Bombay School of Art. He considered that there were still in India as great capabilities of artistic excellence as ever, and that these could and ought to be fostered and directed by such schools as that over which he himself presided.

It was not the tourist and the native dealer only who were responsible for the present state of things. Other forces had contributed, notably the British Resident, the European manufacturer, and the British *raj* itself. Thanks to these, the East was, indeed, ceasing to be *barbaric:* it was now only *barbarized!* The British Resident scoffs at the T. G. or globe-trotter, but, as a rule, he himself knows nothing of, and cares less for, the history of Indian Art, nor is he really conversant with the better specimens of even modern native work, and he is as much a slave to fashion as his stay-at-home countrymen. The European manufacturer is only anxious to sell his goods, and will adopt any design or material which will catch the eye and money of the native population. The British *raj* "adopts a *laissez-faire* policy as regards art in general and art instruction in particular."

It refrains from popularizing European models and designs by commingling styles of all ages selected at haphazard from Europe and Asia indifferently. A saracenic dome will tower aloft from gothic arches and a Rafaelistic angel blow a greeting above a Renaissance portal. These and similar confusions are common enough in any great Government building in Bombay, and yet, as the Principal complains, nowhere in these ponderous erections have the three sister arts of architecture, sculpture and painting had a fair share in the attempts at embellishment. The main reason no doubt is economy—reinforced, it must be added, by a curious artistic indifference, if not by absolute want of taste. What the effect of the economy of the British

Government in this direction is, may be seen by a comparison of the palaces and court of the Mogul emperors with the houses and entourage of a modern viceroy. The extravagance of the Moguls has left us a Delhi palace and the Taj-mahal, the utilitarian expenditure of the British the Viceregal Lodge at Simla!

Last but not least among the causes of decay is the temperament of the native workman. He is often pigheadedly conservative in method yet as easily attracted as a child by any new-fashioned gaud or unknown and startling combination of design or colouring. He is careless and casual, indifferent to finish, and generally absolutely without any artistic conscience. The old workers were not so, but the present race is the natural result of the condition of the time. Not that eclecticism or imitation has been confined to our own days, but that, alas, the originals which are borrowed or imitated are now so vulgar and contemptible, of pitiful artistic value in themselves, and of no value at all when removed from their context. An anecdote told by Mr. Griffiths illustrates this sad fact of irrational imitation. He selected two artizans of great reputation for workmanship and desired specimens of their skill. The one, a worker in gold, produced a shape identical with the English glass tumbler and defended it against the design of a *lota* as being *gelas ke muafic* and *nawa fassion* (fashion). The other, a carpet-weaver with hereditary talent displayed patterns of "Lincrusta Walton" as suitable designs for an eastern rug and preferred them to the colouring and lines on an old Bijapur carpet.

It was not difficult for the Conference to decide that the State ought not to withdraw from the maintenance of Art Schools, or to slight the really good work which most of those existing had done, and high among them came the Bombay School. The exact measures which were to be undertaken to arrest and eradicate the present decay were more difficult to specify, but of those suggested the chief were, the establishment of museums, the prohibition of the import of aniline dyes, and the export of ancient native works of art, the greater use of genuine Indian design and models in the courses of instruction and the introduction of drawing into all schemes of education. Of these, some are not exactly practical, and others are impossible from lack of funds, but the last at any rate is capable of execution and is in fact being gradually carried out. There is, however, one matter which seems to have been left unnoticed, and that is the great good which might be done to the cause of Indian Art by a vivification of Indian archæology and the closer connection of it with the teaching in Indian Art Schools. Why should not the departmental archæologist give in the local School of Art, or for that matter, in the local University, lectures on the development and history of the chief Indian arts? And again, why should not a knowledge of Indian archæology by a *sine qua non* in the qualifications required for a Principal of a School of Art?

The Conference succeeded in convincing the Viceroy's government, and that in its turn won over the Secretary of State, who was now Lord Geo. Hamilton. The latter in a very sensible despatch insisted on the importance of the extension of instruction in drawing, and on the power which Schools of Art had to direct native Art particularly by requiring good and finished work. Lastly, in a few incisive words he sketched the difference between Schools of Art, and Technical Schools. "Both alike require excellence of work, but the Technical school cultivates intelligence in the interest of *utility* while the School of Art teaches the workman to dignify utility by the addition of beauty in ornament and design."

Mr. Tata's Munificent Gift.

(*Contributed*).

ONE of the most remarkable events of the century in connection with India will have to be regarded the munificent gift of Mr. Tata of 30 lakhs of Rupees for the encouragement of post-graduate education in India; or, in other words, the most finished education obtainable in many of the useful branches of science, arts, and industries. It is the noblest thought that has occurred to any man hitherto, with regard to the improvement of the prospects of India, being besides in a pecuniary position to set it into action.

Not that there have not been in former years such lakhs expended, when we remember the princely doings of which we hear pretty often; but on no occasion has any of India's sons contributed such a handsome figure for the superior intellectual development of the cream of India's talent, which, with the run of years, is sure to bring about a very salutary enlightened revolution in the country. Under such circumstances, India can still hope, at some remote future date, to retrieve her departed fortune of intellectual excellence and conspicuity generally, of ages past, and sit creditably among the councils of the civilized nations of the world, contributing her share of progressive literature. It is the time when the future progeny of India will be able to look back with unbounded gratitude to the present gift of Mr. Tata for being the medium of giving India's fortune the right impetus. The more will this appreciation be, as it proceeds from a member of the naturalized sons of India, in spite of the Indian atmosphere being full of conspicuities better favoured with fortune and facilities for the purpose than Mr. Tata himself. But such is the world, as its past history has been teaching us, that the mightiest resolutions, benefiting individuals, communities and nations in general, have sprung up from unexpected individuals, amongst which Mr. Tata's action will in the future have to be recognized as one of the greatest. The only obstacle it presents is in the process of setting it into action, that which is called post-graduate education being a gigantic enterprise, which will require a mint of money for successfully carrying into effect. In fact, it would tax the capability of many of the wealthy men of India, if they were inclined to place their surplus funds together for the purpose, even with the co-operation of the independent ruling princes. Only the British Indian Government could grapple with it, with any approach to perfection, with the means and resources at its command, and could even resort to special taxation over the country, if required. But for such an action the country is not sufficiently developed.

For all that it will be best for Mr. Tata to have an independent line of action for himself within the available means at his command; and the best way in which he could give a practical shape to his desires is to educate as many of the brighest of India's sons in the already-finished institutions of the West of different sorts, as the proceeds of his outlay will allow. The further development of the scheme, after the competent teaching staff for post-graduate education is formed from the indigenous element, may be best left for future generations to take up according to the nature of the requirements that may arise. With the 30 lakhs of Rupees, Mr. Tata could offer about 30 scholarships from the interest of the amount, for first-class education of different sorts, in the already-existing first-class institutions of the West, as then he will only have to support the students thereat. The proceeds of this capital could be distributed amongst the different provinces and Native States in India, for the cream of the talent from all over the country to take advantage of. The fund could be further made recuperative by having reasonable entrance fees, and bargaining with the candidates for partial or entire pecuniary reimbursement, when they should be in a position to do so. There will be many who will criticise adversely the noble gift of Mr. Tata, at which he, however, need not waver from his purpose, as the greatest charitable work a man could do is in the reproductive work of education, where the means for helping others is being constantly enlarged. Giving away pecuniary help to the embarrassed and needy, who have brought on themselves the condition from thoughtless and reckless life, will hardly serve to relieve distress in any great degree, and may also tend to make distress of the distressed still more acute.

It is to be hoped, therefore, that Mr. Tata will move on nobly, undeterred, to the best of his own judgment and according to the outlay which he is disposed to make, without resting the success of his scheme on the co-operation of others, as in such a course there will not only be much valuable time lost, but he may even jeopardize the successful beginning of the noble and patriotic object he has in view.

F. J. PRIES.

English-teaching Schools in British India.

One of the principal causes of the more prosperous results of the connection of Great Britain with her scattered possessions over the world is the application of the liberal system of education to them. Different from the rest of the European countries, more especially the earlier conquering ones, who have all along been adopting a centralizing policy of administration with their dominions even in the remotest regions, England has characterized itself in adhering to a decentralizing policy, introducing it gradually with the fitness of a people for it. There may be a possibility of successfully carrying out a centralizing policy over territories of fresh conquests when they should lie immediately adjoining the Western parent-country, where, in their consolidation, the unifying of the language spoken in the country may be one of the things successfully attemped, but when the fresh territorial acquisitions are remotely situated in the World, with a large population and a strange language and peculiarities, the centralizing policy of administration not only turns out an impossible feat, but often one of detriment to the interests and advancement of its people.

One of the evidences of this is the attempt to generalize the language of the conquering country among, very often, a strange population, displacing their native vernacular tongue. The result is that the young students, with whom this educational work has to be begun in the newly-acquired territories, being made to study a foreign language to start with, find that they are hardly able to master the same, after years of study, and are likewise ignorant of their native tongue. So, the youths on arriving at an age to struggle for existence, find themselves so severely handicapped as to be incapable of standing an open competition with the surrounding more educated people.

The British policy of administration, however, in matters of education, principally in the newly-acquired territories, is always governed on more liberal principles, and takes the initial step of generalising education among a strange people, as a requisite of an enlightened administration, in teaching them their own vernacular as a process of educating them on the easiest and quickest outlines. These are therefore the enlightened outlines of the initial work of the Educational system in the vast Bristish-Indian territories, where the children of each of its provinces commence work at the learning of their respective vernaculars, finishing up with the more advanced studies and literature through English. The result is that the people, being more or less educated, utilize their knowledge for their varied concerns of life in a profitable way, the better educated of them naturally deriving more advantages. This effort of making the people generally educated on the easiest and quickest outlines possible, stands in bold contrast with the results in other Indian provinces under other dominion, where education is begun with a foreign language, and where the people, though Westernized in appearance are, the greater bulk of them, ignorant, not even being able to communicate freely and intelligently in the very vernacular commonly spoken around them, and much less to apply it profitably in their daily concerns like an individual from British-Indian territories.

One thing, however, that strikes one as very anomalous in British India, is the toleration of what are known as the English-teaching schools, even with such as are recognized natives of the country. It is not a natural graft in the applied principles of education in British India, and under whatever influences it may have been made, it has to be declared that it is contributing to the very severe detriment of the large Indian Christian fraction of the Indian population. This is a very sorry result to the interests of the Indian Christians, since, in spite of their recognized loyalty and attachment to the ruling power, from the Christianity they profess in common, and from being stripped of all retrogressive Indian practices, which should have helped them to a greater facility for getting on successfully in the country, they are lagging behind the non-Christian element, which the toleration of the English-teaching schools, which are very freely taken advantage of by some of the educationists, in the educational institutions under their direction, are principally responsible. The Government in the Madras Presidency found out its mistake years ago in tolerating such English-teaching schools, and has ruled, therefore, that all the schools within the Presidency which should expect a grant-in-aid from Government, should be Anglo-Vernacular teaching Schools, and has been thereby helping the interests and advancement of the Christian population of the Presidency equally with the non-Christians.

It is to be hoped, therefore, that the other British-Indian Presidencies will introduce such a ruling in their educational policy, in at least the schools of primary and secondary education, which will give the Indian Christians facility to join in the different services of the country and all other occupations, from which, at present, they are virtually shut out by their ignorance of the vernacular of their respective district. The dissemination of the Indian Christian element throughout all the services and occupations in India, high and low, and their free communciation and intercourse with the non-Christian element, will naturally improve the general tone of loyalty and attachment of the Indian people in general towards the ruling element, a consummation of events which should be the interest of the British Government to foster, and is in no less an action well worth being copied by the other ruling powers of India for the benefit and prosperity of their subjects.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

The Advantages of a Students' Debating Society

BY TWO FRIENDS.

The advantages of a debating society are far and wide; and its importance is so clearly acknowledged on all hands that it is established in connection with almost all the best and model schools of the day conducted by private enterprise. The heads of the schools have but taken a right step in the right direction in establishing debating societies which promise to do in future much substantial good to the students. We shall now consider some of the principal benefits to be derived from an association like the Students' Debating Society.

I. First of all it tends to promote a friendly feeling between the members of the society. By a mutual interchange of our views we know each other's mind, and finally learn to regard the opinion of others with esteem, even though different from ours, if expressed with honesty of purpose and with the object of enlightening us with truth and reasoning. So this mutual interchange of opinion avoids disagreement between us to a certain extent. Private enmity is forgotten for a time when discussing some interesting subject in a friendly manner in the society.

The second advantage is that we get an opportunity to know the views of others, and we are thus enabled to correct our views in the light of the experience which we derive from the sound and sober views of others. Even if our views are oftentimes correct we feel diffident, and have not the courage to give them out; but such an assembly inspires confidence in us and we gain much knowledge by freely ventilating our views, and hearing the views of others, which stimulate us to express our own.

II. Amongst other advantages, it increases our argumentative power. It accustoms us to speak and correct our delivery. There are many who feel nervous when they first get up to speak; but as practice makes a man perfect, the habit of speaking improves our delivery of speech a great deal, and developes in us a style of oratory. We read of many fluent speakers being failures when they delivered their maiden speeches, but their after-efforts at oratory were attended with great success.

Another advantage is that it cultivates our power of reasoning, gives full play to our power of imagination. Our mind becomes logical, and that rhetoric and logic, which are necessary qualifications to become successful in the art of debate, are both cultivated to a certain extent in a debating society. The training in the debating society as the basis of mental culture has peculiar advantages. In a debating society we learn to make observations accurately and to the point, and our memory becomes admirably developed. By debating our mind becomes well-disciplined, and, again, a well-disciplined mind conduces to morality, which is an important factor in the success of a man's life. There are still numerous other advantages, but we do not wish to dilate upon them at unnecessary length.

Obituary.

Sir Monier Monier-Williams.

THE death is reported in England of Professor Sir Monier Monier-Williams, K. C. I. E., M. A., D. C. L., LL. D., Ph. D., Sanscrit scholar and Indologist, son of the late Col. Monier-Williams, Surveyor-General of the Bombay Presidency. Born in Bombay in 1819, he was educated at private schools and at King's College, London, and entered Balliol College, Oxford, in 1838. He soon after obtained an Indian writership, and proceeded as a student to the E. I. College, Haileybury, where he gained the first prizes in all the Oriental subjects. For domestic reasons he resigned his Indian appointment and returned to Oxford, became a member of University College, was elected to the Boden scholarship in 1843, graduated B. A. in 1844, and was awarded an honorary place in class lists both in classics and mathematics. He was Professor of Sanscrit at Haileybury from 1844 till the abolition of that institution in 1858, when he removed to Cheltenham, and for two years superintended the Oriental studies at the College. In Dec., 1860, after a long contest, he was elected Boden Sanscrit Professor at Oxford. He was also Fellow of Balliol College. The following is a list of his works: "A Practical Grammar of the Sanscrit Language, arranged with reference to the Classical Languages of Europe, for the use of English Students," published in 1846, of which a fourth edition was published by the Delegates of the Oxford University Press in 1877; an edition of the Sanscrit drama "Vikramorvasi," in 1849; an English and Sanscrit Dictionary, published by E. I. Company in 1851, an edition of the text of the Sanscrit drama "S'akuntala," with notes and literal translations, in 1853, of which a second edition was published by the University of Oxford in 1876; a free translation in English prose and verse of the Sanscrit drama "S'akuntala," in 1855, reprinted in 1856; "Rudiments of Hindustani, with an Explanation of the Persi-Arabic Alphabet, for the use of Cheltenham College," in 1858; "Original Papers Illustrating the History of the Application of the Roman Alphabet to the Languages of India," entrusted to him for publication by Sir Charles E. Trevelyan, Governor of Madras; a Romanised edition of the Hindustani work, "Bagh-o-Bahar," with notes, &c.; "Hindustani Primer," and "An Easy Introduction to the Study of Hindustani," in 1859; "Story of Nala, a Sanscrit Poem, with vocabulary, and an improved version of Dean Milman's translation," published by the Oxford University Press; and "Indian Epic Poetry, substance of Lectures," in 1863; and "a Sanscrit and English Dictionary," published by the University of Oxford in 1872; a work called "Indian Wisdom, or Examples of the Religious, Philosophical, and Ethical Doctrines of the Hindus," third edition, 1876; "Hindus," one of the non-Christian religious systems, published by the Society for Promoting Christian Knowledge in 1877, which has gone through several editions; "Modern India and the Indians," 1878, which has gone through three editions, and a series of articles on "India" in the *Times*, *Nineteenth Century*, *Contemporary Review*, and other periodicals; these articles have since been reprinted. He has more recently published "Religious Thought and Life in India," 1883; "Brahmanism and Hinduism," 1887; "Buddhism," 1889, and was in 1890 engaged in the preparation of the second edition of his Sanscrit-English Dictionary. In 1875 he made the first of his three journeys to India for securing the co-operation of the educated natives in the establishment of an Indian Institute, and a school of Indian Studies at Oxford, and for the prosecution of his researches into the present condition of the religious sects of India. During his absence the University of Oxford conferred on him an honorary degree of D.C.L., and he also received an honorary LL.D. degree from the University of Calcutta at the same time as the Prince of Wales. In 1876 he visited India a second time, and returned in 1877, after having traversed the whole peninsula, and received cordial promises of support from all the most influential members of the Indian community. In 1880 he was made a Companion of the Order of the Indian Empire, and in 1882 an honorary member of the American Oriental Society, and more recently of the American Philosophical Society, and a Ph. D. of the University of Gottingen. He is also a member of most of the Oriental Societies of Europe and of India. The Secretary of State for India appointed Professor Monier-Williams honorary delegate to represent the Government of India at the fifth International Congress of Orientalists held in Berlin in Sept., 1881. In 1883 he visited India a third time, and was the guest of Lord Ripon then Viceroy. He was an hon. member of the Asiatic Society of Bengal and of Bombay. He was knighted by the Queen on March 8, 1886, was created a Knight Commander of the India Empire in 1887, and was appointed Duff Lecturer in the University of Edinburgh in 1888.

Dr. A. K. H. Boyd.

DR. BOYD, of St. Andrews, is dead. Who, in reading this news, will not feel that with the venerable and accomplished minister of the Town Kirk there has departed some of the glory that has continued to hang about the old ecclesiastical capital of the Northern Kingdom. Something of the not too abundant element of genial human interest, of wit and of wisdom, has been withdrawn from the Church and its concerns. A link has been snapped between the present and the past of the social life of Scotland. Literature, too, has sustained a loss in A. K. H. B., although not perhaps in a vital part. The circumstances of Dr. Boyd's death will add greatly to the painful impression which the sad tidings will make. He had passed the allotted span, and had he been spared for other two years he would have celebrated his jubilee as an ordained minister of the Church of Scotland. Sorrow and sickness, as well as the infirmities of age, have of late years broken him down, and he has had more than one attack which his friends, and he himself, feared might result fatally. From such an illness he was believed to be making satisfactory recovery; and he was spending his time of convalescence in Bournemouth when, rising in the night to take a sleeping draught, he swallowed by mistake part of the contents of a bottle of carbolic lotion, and died in an hour from the effects. Thus something grimly fateful and tragic found a place in the death-bed scene of one whose passing, to be in harmony with his life, should have been serene and painless. Few men had a wider and more illustrious circle of friends than Dr. Boyd. They were of all creeds and nearly of all classes; and his name and reputation were almost as well known on the south as on the north side of the Tweed. This fact alone is testimony to his breadth of sympathy and catholicity of view. The greatest forces in the religious and ecclesiastical life of Scotland have been apt to work in narrow grooves, and to be known and felt mainly within their own denomination and their own country. It was long a tradition that those who belonged to different sects, even within the Church Presbyterian, should keep themselves in opposing camps; and between Presbytery and Prelacy, to say nothing of Protestant and Romanist, there was a great gulf fixed. It is part of the merit and the praise of A. K. H. B. that he did perhaps as much as any man of his time to break down what remained of those barriers, especially in the domain of social intercourse and friendship. With how many prelates and Church dignitaries, with how many men eminent in letters, in science, and in politics, he was on familiar and affectionate terms, his reminiscences will show. Are they not all written in the books of the Chronicles of St. Andrews? Dr. Boyd had the gift of taking the public, as well as his intimates, into his confidence. He gave freely of his thoughts, the lighter as well as the more serious, and the bran along with the wheat. He exposed his own foibles—some of which were open and palpable enough—as freely as he did those of his friends, and with a mixture of art and artlessness that captivated and delighted his readers. Book after book poured forth from the study of the "Country Parson" and of the Minister of St. Andrews; essays, sermons, memoirs, and anecdotes tripped on each other's heels; and all were eagerly welcomed, and the last devoured with as much zest as the first. One secret of this popularity no doubt was that the author himself wrote with zest. He put part of his own individuality into all that he offered to his readers. His books have, among other preservative qualities, something of that charming and half unconscious candour and egotism that give perennial freshness to Mr. Pepys's pictures of himself and of his time. In the least offensive sense of the phrase, Dr. Boyd was a born gossip and story-teller. In his recollections one is privileged to gaze, as in a mirror, upon the features and the figures of the crowd of people that came within range of vision of one who looked keenly as well as widely about him. Without him, St. Andrews will hardly know itself. He was not wrong when he divined, before ever he saw it, that he and the "grey old city" were made for each other. While he lived and moved in it, playing the host, chronicler, and cicerone, as well as the graver part of Minister, it seemed to regain a portion of its fame as a place of literary and historical pilgrimage, and even something of its lost ecclesiastical pre-eminence. Had he lived in days of Episcopacy, he would almost infallibly have found his destiny at this sequestered and yet far-seen spot as primate. Indeed, he made no secret of a half-humorous regret that the rules of the Presbyterian Church do not recognise Bishop's orders; and that even Colonial Deans could flaunt before him a title to which he was forbidden to aspire, was probably one of the few drops of bitterness in his cup. For these amiable weaknesses he was honoured with the suspicions of men of the Jacob Primmer kidney. Yet there was no more zealous and loyal son of the Church in which he was born and lived. He was never—except on the occasion when he was chosen Moderator of Assembly—prominent in Church counsels and debates, thereby manifesting a wisdom and reserve which those who had only a surface knowledge of him may have wondered at. But undoubtedly he exercised a powerful and a salutary influence. He was the chief instrument in obtaining for the Church an improved hymnal. In other directions he did much to reform and brighten its service, and, what is perhaps of more importance, to remove prejudices and soften acerbities of creed and practice, and to promote brotherly kindness and charity. He was never weary in magnifying his office, or in discharging its duties with all his heart and with all his might. As a man of many gifts and high culture and accomplishments, his Church and nation have reason to feel proud of him. But his chief reward came back to him in that love, friendship, and sympathy which he gave so freely to others. Scotland will not soon have another A. K. H. B.

Athleticism in England and India.

THE part which athletics should play in any system of education has been often debated among both ancient and modern thinkers. If we go back to classical times we find Plato assigning to the training of the body an importance almost equal to the care he would bestow on the cultivation of the mind. The Romans, with the military necessities of the Empire constantly present, elevated gymnastics to a profession and divorced it from mental culture. In mediæval times the separation became wider, for the deluge of barbarism left the clergy as the sole depositories of learning, and education fell wholly into their hands. Society was organised on a military basis: the duties and amusements of the upper classes were defined purely by war, and physical strength and activity were the chief factors in determining the issue. The energies of the lower classes were spent in fulfilling their military obligations and in the struggle for life. The renaissance and the Reformation opened the path of learning once more to the layman, and in the later chivalry of Elizabethan times we see the cultures of mind and body again combined. But the gap was not thoroughly bridged over. Education was confined to the upper classes, and it is but rarely that we find even there a Sydney. The revival of learning introduced a widespread curiosity into the history and customs of the Greeks and Romans, and education thenceforth aimed mainly at stimulating this curious interest in the past, not at the development of the student's intellectual, still less his bodily capacity.

Later, the growth of science not only widened the subjects of study, but introduced more scientific methods into education itself. But this advance was long in coming.

Science had itself a hard struggle before it was admitted to the curriculum of our schools, and it is only recently that the results of its enquiries into the working of the human body and brain have been applied to education. A great change has followed, and the teaching of science has supported the *á priori* theories of Plato. It has come to understand to a great extent that intimate connection between body and mind which Plato could see but could not trace out, and it has therefore confirmed his proposition that 'gymnastic' is no less an essential part of education than music.

It was some time before this proposition won general acceptance among English Headmasters, and still longer before an attempt was made to carry it out in practice.

But when it did so far prevail, it was carried to extremes, with the very result which its opponents had dreaded and Plato himself foresaw. In the last decade, English school-boys and school-masters have been the slaves of athleticism, and the result has been that a very large proportion of English boys are, when they leave school, "haters of discussion, and illiterate persons taking no part in rational discourse or any intellectual pursuits." Their teachers also are often selected rather with a view to their athletic capacities than their mental qualifications. Quite recently, however, a reaction has set in against this extreme fanaticism, and athletics are beginning to fall back into their right position. Parents and Educational authorities have alike protested against the undue importance assigned to the cultivation of the body at the expense of the mind. Now, therefore, that some tolerable solution of this vexed question seems possible, it seems opportune to consider how far education in India is affected by it.

The question in India is the reverse of that at home.

We have not to consider how to keep athleticism within due limits, but whether it is not desirable to encourage a greater interest in games among school-boys and college students, and what are the best means of doing so. That athletics have a value in India, almost if not quite as great as in England, admits of no doubt. Though, perhaps, of lighter, less sturdy build than the English boy, Indian youths are not on that account less fitted for success in games. On the contrary, many who have devoted attention to them have derived much advantage from this fact. They have displayed no less powers of endurance and even greater activity than their English rivals. There is, in fact, nothing in the physical constitution of the students of this country to debar them from success in cricket, football, tennis, or any similar form of competition. Nor does the climate offer any serious obstacle to those who are native to it. It has always been found possible to adapt a game to the circumstances of the country in which it is played, without detracting seriously from the enjoyment it affords. From games, therefore, they will be able to derive that pleasure which the employment of our physical energies always gives, at the same time that they harden and strengthen their physique. For it must be confessed that in many students there is much room for improvement in this last respect. A hot climate has an enervating effect even on those races which have always dwelt under such conditions, and now that warfare and military service are no longer open as a check upon this, we may well seek a new remedy in the mimic warfare of the cricket and football field. Here the student may brace up his muscles, learn to face danger boldly, to keep his head at a critical moment, and to have confidence in himself; in short, may foster, as Plato would put it, the 'spirited' element in him. But he may do even more than this. He may learn not only self-confidence, but also self-command, not only to foster the spirit, but to keep it under self-control. Cricket, football, rowing, make large demands upon our powers of self-denial and obedience. In this smaller field, then, the student may gain qualities which will be useful to him in any sphere of life, and, perhaps, if athletics could once obtain a stronger hold on Indian youths, we should hear less of political disturbance and disaffection. Their energies would thus find a more harmless outlet, while the obedience which they had learnt to render on the cricket field would be paid more readily in the serious business of life.

If athletics can teach obedience, still more do they demand the qualities of a leader, tact, firmness, powers of organisation and others. These are the very qualities which we so constantly find lacking in the Indian when placed in a position of authority. They have never been used to power, and they too often abuse it, or are afraid of responsibility, while they are unused to the task of organising large bodies of men. It may be on a small scale, but cricket, and football especially do supply our English boys with these qualities, and it is the great boast of our public school system that they do. That system does not, and cannot, perhaps, to any large extent, exist in India, but we can at least supply one of its chief features, the games club. No doubt, there are many native clubs—cricket, football, tennis—already existing, connected with schools or composed of college students or Indian gentlemen. But the last have never that *esprit-de-corps* which is an essential part of the public school or college clubs, and the former are neither numerous nor sufficiently attended.

There is unfortunately a tendency among Indian students at school or college to regard those institutions as mere machines for passing examinations, and the examinations as so many steps to Government posts. If Indian schools or colleges have not the corporate life of English schools, they should at least be more than this. Education does not consist in the satisfaction of examiners, in the capture of scholarships, in the attainment of fur or silk-lined hoods: it does not even mean the amassing of information. Its object should be the development of our mental and bodily capacities to their highest extent, and as we have endeavoured to show that through athletics lies the road to bodily ability, so we would here argue that the mental capacity reaches its highest point, not by poring over books, cramming up facts or hearing history by rote, but by assimilating as much information as our understanding can grasp, and then seeking to confirm our knowledge by contact with *men*. Books, it has been said, are only bottled experience, and, moreover, the experiene of other men. If it is to be of use to us, we must make it our own by testing it in the world. The book-worm will never be a hero. Time spent in the cricket field is not time stolen from the hours due to the cultivation of the mind. It is time spent in fitting ourselves to use our information. Indian students are either too sluggish or too excitable; the former will find stimulus, the latter self-command, in athletics. There are, of course, difficulties in the way of progress which do not appear in England. Many of the students are poor, and therefore unable to purchase the outfit required by the player in some games. But the outfit is not, as a rule, large, and most clubs can afford, if their members are numerous, to make their subscription small. There is, however, a more important difficulty which would have to be met. There is in India a disposition to demand concrete rewards for prolonged exertions, and this would render athletics very liable to the vice of professionalism. But in spite of the difficulties experienced at home, it does not seem impossible to combat this if it arose, and it certainly should not arise in schools and colleges. Athletics can teach no finer lesson than the pleasure of work for work's sake, apart from the rewards or profit work may bring. And if Indian students learn nothing more than this from their gymkhana, they will not have been wasting their time. Indeed, there is no moral quality or virtue which they cannot exercise or learn in the practice of games.

A. L. C.

The Scottish Education Code.

THE 1899 Code of the Scottish Education Department will introduce a new era in elementary education in Scotland. It marks a further stage in the process by which elementary education has been freed from hard and fast regulations which, however necessary at the first inception of a national system, have now served their purpose. Educational authorities had to learn their work, and to secure this end the crude devices of standards and payment by results had a certain justification. The last remnant of the system of payment by the result of individual examination was swept away in 1890, and now the Department have determined that as far as they are concerned the standards shall follow it. The merit certificate has been made the central point of the new system, and after 1st April 1900, when the changes will come into effect, the division of children in elementary schools will not be among the various standards, but will be between those who have obtained the merit certificate and those who have not. This certificate was first introduced in the Code of 1892, with the view of meeting the complaints which reached the Department of the defective way in which pupils acquired the ordinary elementary subjects. The intention was to encourage thoroughness in elementary subjects, and it was at first awarded to any child over thirteen who attained a standard of thorough efficiency in the three elementary subjects as well as in at least two class subjects. The age was afterwards reduced to twelve, and in last year's Code the specific subjects were dispensed with, with the view of making it a test of sound and thorough training in elementary subjects. Under previous Codes the grants to schools were regulated by an elaborate scale. Speaking roughly there was a capitation grant of 10s. a head, with grants of 1s. or 1s. 6d. each for singing, discipline, drill, and needlework. There was a grant which varied from 1s. to 3s. 6d., and was different in the different standards for " standard " subjects, and a grant varying from 4s. to 6s. for " class" subjects, the recognised class subjects being English, geography, history, and natural science. In addition to these more usual subjects there was also a system of grants for certain specific subjects of secular instruction, which included mathematics, Latin, Greek, French, German, navigation, agriculture, and domestic economy.

This cumbrous system is swept completely away, and schools will be reoganised on a new basis, the essential principle of which is the distinction between those children who have obtained the merit certificate and those who have not. The lower department, which will consist of children who have not obtained the certificate, will be divided into three divisions—an infant division, a junior division, and a senior division. The arrangement of the children within the divisions need not correspond to the sub-divisions of the standards of examination, but must be such as shall enable the childen to attain the merit certificate by easy stages. The classification within the division is to be such as to afford due opportunity for promotion, and promotion in one subject is not to be made dependent on proficiency in another. Certain conditions are laid down to which all schools must comply. The organisation of the school, both as to divisions and the classification within the divisions, must be satisfactory. All reasonable care must be taken in the ordinary management of the school "to bring up the children in habits of punctuality, of good manners and language, of cleanliness and neatness, and also to impress upon the children the importance of cheerful obedience to duty, of consideration and respect for others, and of honour and truthfulness in word and deed." In all cases and for all divisions, the scheme of work must make provision for adequate physical exercise according to an approved system, for the instruction of the girls in needlework, for singing, drawing, and learning poetry by heart. In the senior and junior divisions provision will be principally made for the instruction of scholars in reading, writing, and arithmetic. In the junior division provision shall also be made for instruction in nature knowledge, in speaking English, and in first notions in geography. In the senior division instruction in these subjects will be amplified, and some knowledge of British history will be added. When it appears from the report of the inspectorthat these conditions have been observed, and that the school has been maintained in a state of satisfactory efficiency, a normal grant will be made varying from 18s. to 22s. per child according to the ages of the children. This normal grant may be increased by 6d. on account of exceptionally meritorious work in any division, and may be diminished by 6d. on account of defects in instruction under the majority of the heads, and by 1s. for any observable neglect of the requirements of the article relating to manners, or for the omission of any essential portion of the required curriculum. The only additional grants of general importance in the lower department of the school are for drawing, and for a special infant department. A distinct article provides for the grants to be paid for the advanced department of schools, which will consist of children who have obtained the merit certificate. The article provides that "where suitable provision is made for the instruction of pupils who have obtained the certificate, according to a curriculum approved by the Department for each school, in classes of not more than 40, there may be made a normal grant of 50s. on the average attendance." This grant may be increased in cases of exceptional efficiency by one-tenth, and may be diminished by one or more tenths for faults of discipline or instruction, for the omission of any essential part of the curriculum, or for failure on the part of the managers to provide the necessary equipment. In all cases the approved curriculum must make provision for adequate instruction in English, history, geography, and as a rule drawing; also for instruction in such other of the following subjects as the Department having regard to the circumstances of the school may determine—namely, languages, mathematics and science. The instruction in the higher department must be related to that given in the lower department, and the Department must be satisfied that adequate preliminary instruction has been given in the selected subjects below the merit stage. Grants cannot be obtained both under the second article and under the article relating to the lower division for the same scholars, but where the Department are satisfied that there is not a proper advanced department the inspector may recommend a grant on account of the pupils in it as if they formed part of the senior division of the school. Grants are also provided under certain conditions for lessons in experimental science, or cookery, laundry work, dressmaking, or practical household economy. It is also provided that grants may be paid for manual instruction and for cookery, laundry work, dairying, or for practical household economy on the attendances of pupils who being in the senior division of the school have not yet obtained the merit certificate.

A sound elementary education is thus made the main object of the public educational system. There will be no temptation to school managers to waste on the teaching of "standard" or "specific" subjects time that would be more profitably spent in teaching the more important branches of an elementary education. The regulation of details is left largely to the discretion of the authorities, and all that is required from them is that the education they give should be thorough and in conformity with the lines thus broadly laid down in the Code. The first effort of managers will be to make their pupils take the merit certificate, which will become a sort of degree signifying that the holder is well versed in the essentials of all education. But the effect will not stop here, since there will be a direct inducement to every school to have a properly equipped advanced section, and an advanced section will only be regarded as properly equipped when the education given in it is a continuation of that given in the lower division. There will be no risk of the two parts of the school not being properly related. In a good many of the better Board schools the classification contemplated in the Code has been adopted with the best of results, and its effect will be to induce other schools, which have adhered more rigidly to the old system, to adopt broader methods and to make the education that they give more thorough and complete. It will be the aim of every boy or girl to obtain the merit certificate, while there will be every inducement not to remain content with the bare rudiment of education of which it is the symbol, but to go on to the higher branches. Even, however, if they do not pass this elementary stage, there will be at least the assurance that the education they have obtained in order to win it will be thorough, and not of that superficial kind that is worn off before manhood or womanhood is reached, as is apt to be the case when the attention is distracted by the attempt to teach too much. The lines on which the Code is drawn show that the Department have considerable confidence in the school authorities, and can trust them to give a good and thorough education without being careful to prescribe the details. It is to be hoped that this confidence will be justified, and that the operation of the new Code will do something to redeem elementary education from some of the reproaches that, with some show of reason, are often made against it. Free from rigidity itself, its chief merit is that it provides for a course of education which must be systematic and thorough. Scotland has generally shown the way in elementary education, and this last reform is worthy of the best traditions of Scottish education. It is a bold step. But it is a step in the right direction, and reflects much credit on the Scottish Educational authorities.

Reviews.

A HISTORY OF INDIA.

BY SIR W. W. HUNTER.

(PAPER I.)

THE first instalment of Sir W. Hunter's history has now appeared. An untoward stroke of ill-fortune has curtailed the execution of the whole task that the author had set before himself. When a large portion of his MSS., notes and materials went down in the wreck of the "Nepal" on their way home from India, it became necessary to limit the range of the work contemplated. Thus what should have been a History of India, by no fault of the writer, dwindled down to an account of the rise and growth of the British power in the Indies. And yet the larger and more comprehensive treatment which would have been essential for the wider design has not been altogether wanting in the narrower. Sir W. Hunter starts with a general survey of the routes by which in ancient and mediæval times trade passed from India and Central Asia to Europe. He shows how by the conquests of the barbaric Turks in W. Asia and Europe these old lines of communication were closed or nearly closed, how the Christian nations were forced to seek for a sea-route by which they could give the Turks the slip. Their attempts, owing to the fact that the Turks had become converts to Islam, assumed the character of a war of religion, and this quasi-crusading spirit reached its highest pitch among the intensely Catholic chivalry of Portugal. With the Portuguese in the Indies the Spaniards entered into no serious competition, being content, more or less, with that half of the world which had been assigned them by the Pope's Bull. But when the Portuguese and Castilian crowns became united under one sovereign, the enemies of Spain naturally saw no just reason for respecting the inviolability of the Portuguese possessions. Thus the English, despite their hereditary connection with "the Portugals," began to press into their Eastern dominions and were followed and (in the rich spice islands of the further East) outdone by the Dutch. An intense rivalry sprang up between the two Protestant nations, and the feud engendered by lust of gain and material wealth culminated in the massacre of Amboyna, which at once signalized the defeat of the English in the Malay Archipelago and heralded their recoil to India where after long years of varying fortune they were to build an Empire many times exceeding in wealth, extent and power that which they left to the enjoyment of their rivals.

Here the first volume of the history comes to a stop, having, as will be seen from our brief sketch, covered no small space of time. The rapidity with which it has been necessary to dispose of the many great events referred to and the stern compression which has been the result may account for a certain lack of interest in the text as a whole. An attempt has been made to cover too much and without a very just eye for proportion. Thus we cannot help thinking that a good deal of the vague Biblical quotations and allusions of the 1st chapter might have been better disposed of in a foot-note reference, and that on the other hand in the account of the Amboyna tragedy the agony is somewhat too long drawn out. However there are a certain number of general lessons which the author teaches clearly enough, though here again we must confess that they appear more explicit in his introduction than in the main body of his narrative. Such are, first and foremost, that the British power in India is no thing of to-day, yesterday, nor yet a mysterious fabric based upon the extraordinary kindness of fortune and reared by miraculous deeds of superhuman powers. Still less was it a thing of absolute predestination, the result, so to say, of a physical law by which the British rushed in to supply the vacuum caused by the fall of the Mogul Empire. No, it was due to the qualities inherent in the British race, dogged untiring energy, the power to bear defeat and victory alike and a pervading sense of duty, not perhaps of a very high kind at first but gradually purified and heightened as time brought greater responsibilities. Above all, it was the work of not the British crown or the British nobility, but the whole people, and hence it is that it endured, grew, and triumphed, while the Portuguese and French powers perished of inanition due to exhaustion or indifference at home. Again, the English power, if never exactly supreme in Europe, was never a negligable quantity as that of Portugal and Holland became, and so long as the command of the sea remained in English hands the final triumph of England over purely European powers was assured. Lastly, the hour of England's triumph fell at a time when European morality, private, commercial, political was entering on higher grades than had been known in the 16th, 17th and 18th centuries. The Revolution, the abolition of slavery, the opening up of trade and industry all tended to prevent a recurrence of such a regime as that of Portugal, based upon slavery and aristocracy tempered by Catholicism and the Inquisition, or as that of Holland in which the sordid dictates of monopoly and commercial jealousy had kept company with Calvinistic prejudice and a code of manners coeval with the Israelitish exodus.

A corollary of the above conception of the development of the British power is the view that "*vixere fortes ante Agamemnona multi*," and that our own heroes and statesman have not been the first to undertake the training of the Asiatic on European lines. Portuguese, Dutch and French, Albuquerque, Coen and Dupleix alike preceded us, and the fact is only another illustration of the general theory of Sir W. Hunter's work, *i.e.*, that all European achievement in India since its rediscovery (if we may use the term) has been the product of conditions nearly similar, and further has been to a very large extent continuous and progressive. What the Portuguese so vigorously initiated the Dutch adopted and the French raised to a high pitch of excellence long before we had made it distinctively our own. What *is* peculiar, however, in this regard—and this Sir William does not explicitly notice—is that the English have retained, indeed greatly developed, the capacity (more or less inherent in them) of training Asiatics in a way that the Portuguese, Dutch or French have not done and apparently cannot do. And to this power of adaptation and development exhibiting itself in the political and legal spheres as well as in the military, is due no small portion of the success which has befallen us. Englishmen are often termed by foreigners unsympathetic and unappreciative, and no doubt in social and aesthetic matters, where English shyness and pride together with English indifference to art and cultured combine to operate, the charge is often true. But in the sterner concerns of life, where sense of duty, fairness and inflexibility of purpose are demanded and admired the Englishman will not be found to be either unsympathetic or unappreciative, and he is fitted and willing to encourage in these respects equally by precept and by example those among whom he lives. The same could not be said of the Portuguese even when they were at their best; nor can it be said of the French either of the past or the present, while the Dutch have ever made their contempt for the darker and subject races their highest boast. Facts are the best proofs of what we say, and in what possession of what European nation can there be found to exist the freedom and the loyalty which is to be seen in the India of to-day?

We had intended to discuss some of the details of Sir W. Hunter's book at greater length, but space forbids, and these must be left to a subsequent paper.

Landmarks in English Industrial History is the title which Mr. Townsend Warner has given to a very interesting sketch of the economic history of England.

Starting from the Anglo-Saxon period, Mr. Warner has picked out the most characteristic feature of each age, and grouped the chief events round it in such a way as to show its causes and effects. By this treatment of his materials he has succeeded in making what is usually held a very difficult and dry subject both simple and interesting. The reader is not oppressed by a multitude of facts and dates, the usual fault of economic histories, and yet enough are quoted to support the author's conclusions. The latter do not present anything very new or startling (indeed, Mr. Warner does not claim to be original), but they are very simply and clearly drawn and expressed. If we have a fault to find with the book, it is that the path of the reader is made too easy for him, but perhaps Indian students will not count this a blemish.

Mr. Warner deals with the Norman and early Plantagenet period in three chapters, taking, as his landmarks, the Manorial system, Service, the growth of towns, and the Financial system. On the question of the origin of the manor, he contents himself wisely with merely stating the arguments on both sides,but gives a clear sketch of the system of forming it. In describing the system of Service, he gives two interesting extracts from Domesday Book, which, however, might have been explained at greater length. The history of the towns includes a good amount of the merchant and craft guilds, while the description of the exchequer is very interesting. The later Plantagenets are treated together, and Mr. Warner rightly points out the similarity between many points in their policy and the mercantile system. Other landmarks are the Black death, enclosures, the Mercantile system, Banking, the Agrarian and Industrial Revolutions, Laissez-faire and State charity. In spite of his method, Mr. Warner has been successful in making clear the continuity which underlies English economic history. It is not, as at first sight would appear, a history of continual and sudden changes. Experiments were made, it is true, as under the Plantagenets, but it is always possible to trace the causes which led to the adoption of any particular policy, and those causes will be found in the changing circumstances of the country and its inhabitants. The book also brings out the close connexion between the political and economic history of England, not only under the Edwards, or Elizabeth, but during the last century also. It is therefore well fitted to be a companion book for the ordinary Political history, which usually neglects such subjects, and we consider that it should supply a want among Indian college students.

IT is a melancholy satisfaction, says the *Pioneer*, yet withal a satisfaction, that having suddenly lost Sir Robert Warburton, we are sure of not losing Sir Robert's autobiography. Before he fell ill he had completed the record of his eighteen years' work in the Khyber, and had seen most of the proof-sheets through the press. The book will be issued by John Murray almost immediately. At once the story of a very remarkable man, and the record of one of the most interesting periods of frontier policy, the volume should command a wide sale in England and in India.

THE Cambridge University Press is about to publish a new work on Fermentation from the pen of Prof. Reynolds Green. The subject will be treated more broadly than has been usual, a good deal of space being devoted to a discussion of the relation of the soluble ferments or enzymes to the general problems of fermentation. The author enquires also into their own special peculiarities and the resemblances and differences between them and the so-called organised ferments or microbes.

The book will form the next volume of the Biological Series which is now appearing under the editorship of Mr. A. E. Shipley, of Christ's College.

PROF. ARBER's new British Anthologies are so far ready that Mr. Henry Frowde will publish the first volumes (each of which represents a definite period of our literary history) early next month. These are to be the Shakespeare, Johnson and Milton anthologies. The whole series will contain about 2,500 entire poems and songs written by some 300 poets, and will be issued at popular prices although printed in large type on good paper with a cover specially designed by Mr. A. A. Turbayne.

Books Received.

We have also received the following new books and new editions, some of which will be noticed later :—

The Cambridge University Press.—Shakespeare's King Richard II, edited with Introduction, Notes, Glossary and Appendix, by A. W. Verity, M. A.

Comus and Lycidas edited with Introduction, Notes, Glossary and Appendix, by A. W. Verity.

Ode on the Spring and the Bard, by Thomas Gray, edited with Introduction and Notes, by D. C. Tovey.

John Bunyan, by Thomas Babington Macaulay, edited with Introduction and Notes by Arthur D. Innes.

Messrs. A. & C. Black.—Shakespeare's Merchant of Venice, edited by J. Strong, B. A.

Messrs. Wm. Blackwood & Sons. —Fraser's Philosophy of Theism. 6/6 net.

Henry Frowde, Esqr.—The Jonson Anthology 1617-1637 A.D., edited by Professor Edward Arber.

A. M. Holden, Esqr.—One hundred essays in Outline, Professor Meiklejohn's Series. 1*s.*

Messrs. Longmans' Green & Co.—Ritchie's Easy Latin Passages for Translation. 2*s.*

Colby's Selections from the Sources of English History, being a supplement to Text-Books of English History. 6*s.*

Muir.—A Course of Practical Chemistry. Part II intermediate. 4*s.* 6*d.*

Longman's Complete Arithmetics, Mental and Practical, Course A, Books 1, 2 and 3, 2*d.* each ; 4 and 5, 3*d.* each.

Messrs. Macmillan & Co.—Iphigenie Auf. Tauris, edited by H. B. Cotterill, M. A. 3*s.*

Macdonald's School Arithmetic. 2*s.* 6*d.*

Emile Richebourg, Les Violettes Blanches, edited with Grammatical and explanatory Notes and a French-English Vocabulary, by F. Julien.

Wood's Word Building, Derivation and Composition. Practical Exercises Arranged for Class use as aids to accurate spelling and punctuation, an extended vocabulary and the correct understanding and writing of English, Book VII.

Macmillan's Official Drawing Books. 1/20 3d. each.

Messrs. Thacker & Co.—The Assistant for Teachers and Students, Macmillan's English Readers. N.-W. P. & Oudh.

The Supdt. Government Printing.—(Agricultural Series) The Agricultural Ledger 1898, No. 20. Manures and Manuring (Mineral Phosphate) Dictionary of Economic Products (Vol. V., M. 257-59). Phosphatic Nodules of Trichinopoly, and the use of Mineral Phosphates in Agriculture. By D. Hooper, F. I. C., F. C. S.,

Vegetable Product Series, No. 46 (Food Substances).—The Agricultural Ledger, 1899—No. I, Cyanotis Axillaris (Spider-Wort) Dictionary of Economic Products, [Vol. II., C. 2522-4]. Vichka Seed as a famine food in the Bombay Presidency. Report of the Results of Examination of the Grain in the Research Department, Imperial Institute, by Professor A. H. Church, M. A., F. R. S.

Vegetable Product Series, No. 47 (Fibres)—The Agricultural Ledger 1899. No. 2, Colotropis Gigantia (Swallow-Wort) Dictionary of Economic Products, [Vol. II., C. 170-90] Madar Bast Fibre. Report by Professor Wyndham R. Dunstan, F. R. S., Director of the Scientific and Technical Department, Imperial Institute, London, on a sample of the bark-fibre obtained from Madras.

Vegetable Product Series No. 48, (Fibres)—The Agricultural Ledger 1899. No. 3 Villebruma Integrifolia Bankiha ; Dictionary of Economic Products (Vol. VI., Pt. IV., V 133). Bon or Ban Riha Wild Rhea. Report by Professor Wyndham R. Dunstan, F. R. S., Director of Scientific Department, Imperial Institute, on samples of the bark-fibre from Assam. Also an introductory review by the Editor.

Educational Notes.

THE Government of India have published in a convenient form the chief papers relating to the reorganization of the Educational Department in India. These cover the period from 1891 to 1897 and apply to the greater part of India proper, excluding Assam, Coorg, and the Berars. Burma also does not fall within their scope. Perhaps the publication of these documents is intended to mark the close of an era in the Department and at the same time to signify the finality which it is evidently hoped that the new scheme will possess. And yet there be who cannot consent to admit such finality while the many anomalies and (to speak plainly) injustices which still exist continue unreformed if not even unregarded. On the Bombay side there is a general impression (whether true or false) that Bombay has been if not sacrified to, at least dragged in the train, of Bengal. Because certain conditions obtain in the Eastern presidency, her Western sister has had to follow suit and has not been allowed to play her hand to please herself. Uniformity is good—but one can have too much of it.

THUS because in Bengal certain offices are of a relatively low status socially and educationally, their official counterparts on this side, though of undoubtedly higher position in the important respects of social status and education, are dragged down to the Bengal level. Hence we get the edifying spectacle of a man being by force of circumstance and of his own abilities placed in the *de facto* command educationally of an entire province, at the same time as officially and in the eye of the regulation he ranks as unfit to enter even the Provincial Service. Again, we are told that high schools in Bombay correspond to zilla schools in Bengal and are to be treated as such. Perhaps: but why go on to make such fatal exceptions as "the Collegiate schools of Bombay (City), Karachi, Ahmedabad, Poona, etc." These, so far as organization and quality of teaching go, are on the same level with many others in towns not specified but still of no mean importance. And what in the name of commonsense is gained by terming the excepted schools 'collegiate'? What are the colleges on which they are modelled to which they can be said to be in any true sense attached. Most of the large high schools have a matriculate class and so are equally—no more no less—"collegiate." We wonder if the deviser of this unlucky word had any idea of what collegiate schools in England are. 'Collegiate' forsooth! schools might with just as great or as little propriety be termed academic—and in fact are so termed in certain cases!

ANOTHER anomaly—and one which will come home to the more highly placed officers of the Department—is the procedure adopted in the case of acting appointments where a junior does the work of a senior. According to the present system in the highest branch of the service if the senior enjoys certain additional allowances, these are not to fall to his substitute, although the latter may do exactly the same work as the other did and may do it better, and although the new appointment must mean for the junior incumbent responsibility and increased labour. The net result of such "promotion" (as it is ironically called) is a dead loss to the helpless junior. He has to put up with the expenses of a change of menage in any case and may even find himself saddled with two houses both (since they are in Presidency towns) involving a high rent. The excuse given for the maintenance of this regulation is (*a*) that the allowances are personal, (*b*) that the present arrangement suits Bengal. To the unprejuiced outsider there would seem to be no reason in the nature of things why extra payments for harder or lighter work should be made to persons who do not do that work, nor why the convenience of Bengal should be consulted before that of other provinces. Some official apparently regard the present scheme of organization as a law of the Medes and Persians 'which altereth not' and to any representation on the subject reply "what I have written, I have written." Is it because they are like Gallio, or rather like the gods who sit aloft and care for none of these things? If Lord Curzon is really finding his time hanging wearily on his hands and yearns for "the busy departmental life," may we recommend him to try the Educational Department.

THE University has adopted the new scheme by which in the M. A. Examination the historical and philosophical parts are separated and made integral wholes. As we have already commented on the proposals we do not intend to do so again. It only remains to note that the Senate in regard to the alternative proposal for the philosophical section have adopted a compromise and that while Mr. Sharpe's suggestions have been accepted certain of the amendments of Father Bochum have been incorporated with them. Thus in the 4th and 5th heads we find the books favoured by the Jesuit Fathers are admitted as alternative for the more secularly minded 'Green' and 'Abbot.' Under the circumstances the compromise was to be expected and while on broader grounds such settlements are to be regretted they are no doubt convenient in the interests of peace and quiet. And, now, why should not the authors, in which the Presbyterian or the Anglicised Brahmin delight have their turn ?

A STATEMENT has appeared in a contemporary to the effect that French is to be introduced into the public schools of Siam, and the Parisian journals wax jubilant over the French influence which is likely to ensue in that country in consequence. The prophets are probably not aware that English is already the medium of teaching in many of the chief schools and that it is taught in all. Consequently the introduction of French means nothing more than that permission has been given for its study as a secondary language and that as such it will take rank with the other tongues which are taught but are not used for teaching. The fact that there are French possessions in Tonquin and Cambodia justifies the Siamese government in promoting the study of French, but Siam is not eager to welcome French influence. It has object lessons in the government of dependencies on either side of it and a close experience of French methods is not calculated to inspire any great respect or desire for them.

IN the personnel of the Educational Department in Bombay many changes have taken and are about to take place. The death of the late head of the Poona Science College came as a sad blow to his colleagues, who while aware of his weak state of health had not looked for so sudden a termination of his career of usefulness. A practical teacher as well as authority in his own subjects and a man of indefatigable perseverance Dr. Samuel Cooke leaves a place not easily filled. In the departure of the Principal of the Presidency College the Department is about to suffer another severe loss. Mr. Hawthornthwaite goes on furlough very shortly and may perhaps not return to resume his duties at Elphinstone College. Should his absence prove permanent, the course of education in the Presidency will lose one who, with sincere and unostentatious zeal and convictions that were the result of a reasonable faith, has ever proved one of its staunchest supporters. He has had a period of rule as Principal of his College such as in stress and strain was equalled by none that fell to the lot of any of his predecessors. To have kept the College together and to have maintened its efficiency unimpaired through three years of plague is an achievement which needs no words to blazon its merit. Alike in syndicate and in senate, in common room and lecture-hall, the dignity of his controlling presence and his sound and sober wisdom will be sadly missed.

MINOR changes there are also which it may be interesting to note. Mr. J. C. Mayne, after a brief stay in Karachi, quits the headship of the High School there for that at Poona. His cherry activity will be greatly missed in the metropolis of Sind (as the local paper states it), but the change is one which should prove to his benefit, and in his successor Rao Bahadur Alumal Trikandas the school will gain a head whose educational experience is unique. The headship of Broach High School falls to Mr. Contractor who has done well at Hyderabad, Sind, and Mr. Wright passes from the Poona High School to the charge of the more important Elphinstone institution in Bombay. Mr. Adair has gone thence to Kolhapur and Mr. Candy operates in a new sphere of utility as Inspector in the Berars.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 of 1898-99.

Poona, Office of the
Director of Public Instruction,
19*th September* 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. Giles,
Director of Public Instruction.

The subjoined Government Circular, Financial Department, No. 1715, dated 6th April 1899, is published for the information and guidance of Educational Officers.

Poona, 17*th April* 1899. F. GILES,
Director of Public Instruction.

CIRCULAR.

No. 1715 of 1899.

Financial Department.

Bombay Castle, 6th April 1899.

The Governor in Council regrets to notice that despite the attention drawn by the orders noted in the margin to the delay which is permitted to occur in the disposal of applications for pension, such delays are still not infrequent, especially in the case of low-paid subordinates, to whom tardiness in settlement of their claims may be a matter of serious consequence. Government trust that the attention of Heads of Departments having once more been invited to the matter, these delays will cease.

Government Circular No. 1930, dated 23rd July 1887.

Government Circular No. 4252, dated 7th December 1891.

Government Resolution No. 2433, dated 27th July 1894.

2. In certain instances it has been found that delays happen in the submission of applications for pension. The

fault is with the applicant, but is generally due to his ignorance of the fact either that an application is due, or that delay in the submission of it may cause him loss under Articles 987 and 1013 of the Civil Service Regulations.

Heads of Offices are accordingly enjoined, when communicating to any subordinate the order or permission to retire, to give him notice in writing to submit his application immediately, with a warning that pension will ordinarily count from the date of application for the same.

H. S. LAWRENCE,
Under-Secretary to Government.

In continuation of the Notification published at page 477 of the Educational Record and Literary Journal for February 1899, as to the supply of bound Modi Copy-books for Marathi schools, notice is hereby given, under the orders of the Director of Public Instruction, that the date for the submission of samples is extended up to 1st October 1899.

Poona, Office of the Educational Inspector, C. D., 20th April 1899.

R. D. PRIOR,
Educational Inspector, C. D.

Extract from Part II, page 842, of the *Bomboy Government Gazette*, dated 4th May 1899.

NOTICE.

It is hereby notified that an Examination for admission to the Lower Grades of the Public Service will be held on Monday, the 11th September 1899, and subsequent days at the following centres in the Northern Division:—

Ahmedabad.
Nadiád.
Godhra.
Broach.
Surat.
Thána.

2. The examination will be conducted in accordance with the revised rules published in the *Bombay Government Gazette*, Part I, of January 17th, 1895, at pages 49—52, and subsequent modifications published at pages 622 and 720 of the *Bombay Government Gazette*, Part I of 1898.

3. Candidates should submit their applications, &c., on or before the 1st August 1899, to the President of their Centre, after which date no application will be received.

4. Candidates appearing at the Thána Centre are referred to the notice issued by the Educational Inspector, C. D., in the *Bombay Government Gazette*, Part II.

J. OLIVER,
AHMEDABAD, Educational Inspector, N. D.
29th April 1899.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY

(NEXT TO THE SMALL CAUSES COURT).

1. The following new books and fresh additions are now available in the Library.

2. The Library and Museum are open to the public every Saturday, from 7 to 11 A.M. (Bombay time), and on other days by arrangement with the Curator.

3. See notice in *Record* for February 1887, page 44.

R. D. PRIOR,
Educational Inspector, C. D.

Poona, 14*th April* 1899.

Author.	Title of Work.	Publisher	Price.
	Class 10 :—*Catalogue of Books, &c.*		
	The Book-seller for February 1899.	Whitaker & Sons.	0 0 6
	Do. for March 1899...	Do.	0 0 6
	Class 25:—*English Languages, &c.*		
E. E. Morris M.A.	Byron—Childe Harold's Pilgrimage, Cantos I & II.	Macmillan & Co.	
Do.	Do. Do. Cantos III & IV.	Do.	
	Class :—33 *German.*		
T. Fontane ...	Vor Dem Sturm	Do.	
	Class 42 :—*Latin.*		
H. Wilkinson, M. A.	Cornelius Nepos, Vol. I ...	Macmillan & Co.	
C. J. Phillips, B. A.	Pliny's Letters, I.—XII ...	Do.	

List of appointments in the Educational Department, from the 16th March to the 15th of April 1899.

18th March 1899.—The following appointments are made dated the 1st April 1899 :—

Mr. S. G. Paranjpe, 2nd assistant, in the Maharajah Takhatsingji Observatory, Poona, to be 1st clerk, Poona Training College, *vice* Mr. G. S. Joshi, promoted.

Mr. K. M. Mauskar, head clerk, Deputy Inspector, Thana, to be 2nd assistant, in the Maharajah Takhatsingji Observatory, Poona.

Mr. G. M. Paranjpe, head clerk, Deputy Inspector, Kolaba, to be head clerk, Deputy Inspector, Thána.

Mr. G. L. Bhosekar, 2nd clerk, Deputy Inspector, Sholapur, to be head clerk, Deputy Inspector, Kolaba, on probation.

23rd March 1899.—The following appointments are made in the Nasik High School.—

Mr. G. V. Belsare, 14th assistant, to be 13th assistant, *vice* Mr. N. B. Souche, deceased.

Mr. G. S. Belgaonkar, 15th assistant, to be 14th assistant.

Mr. G. K. Dixit, 16th assistant, to be 15th assistant.

Mr. Govind Ramchandra Kelkar, head master, Anglo-Vernacular School, Bassein, to be 16th assistant.

3rd April 1899.—Mr. J. M. Shah, 2nd clerk, Deputy Inspector, Panch Mahals and Rewa Kantha, is appointed 3rd clerk, Deputy Inspector, Surat.

7th April 1899.—Mr. D. H. Bichu, head master, Municipal School, Athani, is appointed 3rd assistant, Deputy Inspector, Dharwar, on probation.

12th April 1899.—Mr. M. G. Kanade, 2nd clerk, Deputy Inspector, Thana, is appointed clerk and Superintendent, Dhulia Training School.

M. K. M. Gharpure, clerk and Superintendent, Dhulia Training School, is appointed 2nd clerk in the Office of the Deputy Inspector, Thana on proba:ion.

Poona, Office of the Director
of Public Instruction,
15th April 1899.

E. GILES,
Director of Public
Instruction.

The Manager has to acknowledge receipt of the following Subscriptions paid subsequent to the issue of receipted Bills :—

No. of Bill.	Date of Bill.	NAME.	Address.	Date of Payment.
216	25-7-98	The 1st Asstt., Dy. Eductl. Inspector ...	Karachi ...	3-5-99
253	26-9-99	The Head Master, Middle School ...	Veraval ...	1-3-99
255	26-9-98	Do. do.	Wanthli ...	20-3-99
256	26-9-98	Do. do.	Kutyana ...	29-3-99
272	15-10-98	Do. V. C. H. School ...	Morvi ...	20-3-99
292	9-11-98	Percy Hide, Esq.	Karachi ...	28-3-99
325	9-1-99	Native General Library	Bombay ...	27-2-99
329	20-1-99	Principal, N. G. Institution	Poona ...	22-2-99
330	21-1-99	President, the Municipality	Godhra ...	2-2-99
335	30-1-99	The Head Master, Sirdar's High School	Belgaum ...	1-2-99
339	21-2-99	H. L. Lee, Esq.	Rajkot ...	28-3-99
340	21-2-99	J. Oliver, Esq.	Ahmedabad ...	16-2-99
342	21-2-99	The Head Master, High School... ...	Bhavnagar ...	16-2-99
344	23-2-99	The 3rd Asstt., Dy. Eductl. Inspector ...	Hyderabad, Sind	23-2-99
345	8-3-99	Karachi Grammar School...	Karachi ...	21-3-99
346	5-4-99	J. O. Pires, Esq.	Igatpuri ...	5-4-99
347	13-4-99	Depy. Educational Inspector	Mahikantha ...	15-3-99
348	13-4-99	Chairman, The Municipality	Alandi ...	5-4-99
349	13-4-99	The 1st Asstt., Depy. Eductl. Inspector...	Bijapur ...	29-3-99
350	13-4-99	The Head Master, A. V. School ...	Deesa ...	23-3-99
351	4-4-99	Do. do. ...	Tharushah ...	27-2-99
352	4-4-99	Depy. Educational Inspector	Dharwar ...	13-4-99

*** It is requested that Subscribers, who have received receipted Bills (previous to payment) will oblige by sending their Subscriptions early.

A BRIEF SKETCH OF THE HISTORY OF INDIA.

For Lower Secondary Schools.

BY

DANIEL LAZARUS, B.A.,

Principal, L. M. H. School, Vizagapatam; and Examiner, Madras University.

Approved for use in Lower Secondary Forms by the
Director of Public Instruction, Madras.

Sixth Edition.

With a coloured Map of India and eight illustrations.

OPINIONS OF THE PRESS.

The compilation cannot but prove useful to those for whom it is intended.—*The Madras Standard.*

The narrative seems simple and straightforward and the facts should easily be mastered by boys preparing for the Lower Secondary.—*The Educational Review.*

It is written in a very simple and unassuming style, and we are sure it will be very useful to those for whom it is intended. The difficulty is in finding a suitable elementary text-book in Indian History. Mr. Sinclair's smaller book, though a very good one in its own way, is a *little too long* for the Lower Secondary course, and students *are not able to understand it easily and assimilate the facts* contained in the book. The result is we see in many schools students are made to cram up their Indian History from some miserable catchpenny books written by some hungary "book-wrights." To avoid this it will be well if we have such a book as the one before us.—*The Educational Review,* August 1896.

This work gives in language comparatively clear and simple a very fair account of the history of this country. The book will be found most useful to pupils of the 2nd and 3rd Forms of all Anglo-Vernacular Schools.—*The Indian Journal of Education,* October 1896.

In its present form it should have a popularity greater than ever. The Book is on right lines; and it is encouraging to think that the pupils in our schools are likely to have so good a grounding in Indian History as books like this are calculated to give them.—*Christian College Magazine,* November 1896.

The author's part of the little work seems excellent, and from the educational point of view it is a book from which a student might learn with pleasure and profit.—*The Madras Times,* 22nd March 1897.

The little volume is thoroughly up to date.—*The Madras Mail,* 22nd March 1897.

We would strongly recommend the book to all managers of Mission and other Institutions.—*The Christian Patriot.*

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University Affairs.

The scheme of "examination by compartments" has now been dismissed, and, we trust, finally. We do not intend to repeat here all the arguments that were brought against it, nor do we intend to enlarge on the few obvious advantages that it possessed. It is enough to say that in Bombay we have no "Honours" examination, and yet give "classes." Hence if the first of those classes is to be of any value, it must be something other than can be gained by attacking the subjects in detail and despatching them piecemeal. While as to the third or "pass" class, we do not understand what good it can do anyone to be credited with passing an examination the component parts of which may be taken up, "scraped through," and forgotten successively before the whole of the long-drawn agony is completed. After all, whatever the sad reality, the University does pretend to educate, and not even the popular educationalist in his wildest moments could maintain that the above was education. And—examinations are *not* made for man, as the discontented do vainly talk, but (seeing that the flesh is weak) for the sake of education, and man is made to be educated. Hence—but we refrain from drawing the obvious conclusion.

Nevertheless, the "reformers" are not to be left comfortless. They are presented with "moderators" who shall guide and guard their wavering steps. 'Tis a good name, "moderator," and redolent of moderation and all manner of goodness. But *quis moderabit moderatores?* and what would happen if *(id quod diavortunt)* one should prove more immoderate than they who are set to be moderated of him? Whence, too, the word? If from ecclesiastical sources, why such sectarian partiality? Has it in its syllables less of dangerous dominion than *Episkopos*, "the overseer," or more of humility than *Purohit*, "he who is appointed in front"? Moderators, indeed, there be at Oxford, but these are mere examiners and behave as such. The method in which the moderators are to be selected is not indicated in the reports that have reached us. It is presumable that the Syndicate will select, in which case many of those who are best suited for such a function will be excluded, since they are members of the Syndicate, and it has always been the custom to debar such from taking any share in the examinations. There are, no doubt, good grounds for introducing some reform into the execution of examiners' duties. Reform, however, does not mean the creation of new forms, but an improved arrangement of the existing ones. Hence we cannot but distrust an experiment which complicates machinery already sufficiently complex, entails further expense and delay in the conduct of the work, and, lastly, relieves examiners of that responsibility which until now has rested upon them alone, however they may have ignored it or have been genuinely unable to realise it. Surely, it would have been simpler to have insisted on a juster selection of examiners. Considerations of personal, family and sectarian interests should be made impossible: the substitution of new for old examiners should be gradual, and the new men should always be coupled with the more experienced in both the oral and the written parts. Qualifications should be more strictly investigated and not assumed or taken upon hearsay, while sufficiency of English should be made essential. Lastly, if breaches of the University's regulations are discovered, they should be promptly dealt with, the offender fined and not re-employed.

The third proposal which has been lately before Government, and has been approved, is one which is undoubtedly sound. Wrong or right, there certainly was abroad an impression that the Syndicate regarded itself as an "Upper Chamber," and deported itself as an oligarchy. In any case it was a "close body" and whenever its counsels ran counter to the wishes of the Senate, it was stigmatized as antipopular, tyrannical and the rest of it. We have no overwhelming admiration of democracy, least of all as it is exemplified in the Bombay University Senate, and we have never yet heard of an ochlocracy of learning. But aristocracy is not synonymous with oligarchy, and an extension of the

Syndicate in the way suggested will do away with any fear of a future confusion of these terms. The addition of the Director of Public Instruction, of a High Court Judge and of the Head of a great public trust together with the Principal of the Presidency Medical College, will prevent what should be "the rule of the best" from degenerating into the "tyranny of the few."

Prof. Combope on Law in English Poetry.

The Professor of Poetry at Oxford in the fifth lecture of his series on "Law in Taste" in the Taylor Institution taking for his text the lines in the "Essay on Criticism," beginning "But soon by impious arms from Latium chased," said that the poet had described in them with accuracy the movement of the Renaissance northward from Italy to France, but that his account of the attitude of the English mind towards the Renaissance was incorrect. Pope wrote—

> "But we brave Britons foreign laws despised,
> And lived unconquered and uncivilized.
> Fierce for the liberties of wit, and bold,
> We still defied the Romans as of old."

At no period of English literature had our poets shown themselves insensible to influences of classical culture proceeding from the Continent. Chaucer, Wyatt, Surrey, Spencer, Shakespeare, Beaumont and Fletcher, Dryden, Pope and Byron, had all been greatly affected by the art either of Italy, Spain or France. Even if Pope's propositions were limited to the treatment in England of rules like that of the Three Unities which was ascribed to Aristotle, a section of English critical opinion, always increasing in volume from the time of Sir Philip Sidney to the close of the 18th century, had supported the classical tradition of the Italian Renaissance. Supposing, however, the tradition had been absolutely rejected by the English poets, this would not necessarily have proved them to be "uncivilized." For, in the first place, the law of the Three Unities, and other rules of the kind, were not laws of Aristotle, but mere deductions of Scaliger and Castelvetro in the 16th century from a misinterpretation of the sense of the "Poetics." And in the second place, if the rules in question had been indeed laid down by Aristotle himself, they could have been regarded only as by-laws applicable to Greek poetry, and of quite different authority from Aristotle's reasoning on the subject of the Universal in fine art. The rule of the Three Unities was naturalized in France, because it suited the character and circumstances of the French people; but when Voltaire applied the rule to *Hamlet,* he merely exposed his own ignorance of the principle of Shakespeare's art. Assuming that he was really imitating the Universal, the English poet was right in giving to his representation of the

Universal an English stamp, and in following the traditions of English taste. No critic had a right to impose rules *à priori* on the poet; genius alone must determine its own course within the recognized limits of law. All that the critic could do usefully was to declare the common law in the poetry of a nation by observing the practice of its classic poets, and to distinguish the character of the national genius by contrasting it with the character of the art in other nations. Hence, said the lecturer, he had in his two previous lectures examined the operation of the law of national character in French and German poetry; he now proposed to consider how the character of English poetry differed from that of its neighbours. The first feature that must strike every observer was the multiplicity of elements in the English character compared with either the German or the French. In respect of race and language, the German was almost unmixed; in the French nation the Teutonic element had been absorbed in the genius of the Romanized Celt, and the French language had grown out of the decay of the Latin; in the character of the English race, Celtic, Teutonic, Scandinavian, and Latin elements were combined; in the English language the physical predominance of the Teutonic element showed itself in our method of imposing the accent; but in our poetry the intellectual force of the Latin was historically proved by our rejection of the ancient alliterative verse of the Germans in favour of the French metres determined by accent and rhyme. A similar equilibrium of opposing forces was observable in our history. The principles of Monarchy, Aristocracy, and Democracy were inherent in all the Gothic nations, but while in France, during the greater part of its history, the centralizing monarchical principle had swallowed up the principle of feudal aristocracy; and while in Germany, on the contrary, local aristocratic privilege had for centuries reduced to impotence the central action of Monarchy; in England the three principles had struggled together without anyone of them obtaining an exclusive superiority, and without the growth of the nation as a whole being hindered. The progress of this conflict was vividly reflected in our poetry.

Again there were three great sources of European culture, common to the English, French, and German nations—Catholic traditions, the Reformation, and the

Humanism of the Renaissance. France had succeeded in fusing in her poetry the opposing principles of Catholicism and Humanism; but she had rejected the principle of the Reformation; and probably no nearer approach to spiritual Christian feeling in a classic French poem could be found than the arid Jansenism of Boileau's Epistle on the love of God. Germany had led the Reformation; she had developed the theology of Luther and the metaphysics of Kant; but then Germany had been unable in the 16th century to assimilate the civic influences of the Renaissance in the same manner as England and France; and this was probably the cause of the coldness of Goëthe's dramas, which, though inspired with a sense of abstract classic form, lacked the life and movement imparted by a widespread spirit of national action. England, at a very early period, admitted into her intellectual life the principle of Humanism; she incorporated at a later date the spirit of the Reformation; but she never touched what Burke called "our Gothic and monkish foundations;" hence all three elements of hereditary culture were seen struggling together in the imagination of our greatest poets. From these facts the lecturer deduced the conclusion that the idea of law in English poetry, as in English politics, was to be found in the fusion of opposing principles—a position which he supported by citing Sir Joshua Reynolds's definition of fine art, as "an assemblage of contrary qualities, mixed in such proportion that no one part is found to counteract the others." He illustrated this definition by a comparison between the structure of Spenser's "Faerie Queene" and that of Milton's "Paradise Lost," showing that both poets had striven to combine in artistic form the three contrary movements of Catholicism, the Reformation, and the Renaissance, and for what reasons each had attained a different measure of success, and he said that in future lectures he hoped to examine the work of other English poets, who had acquired a classic and representative position by harmonizing the conflicting tendencies of their age.

He concluded his lecture by considering what test should be applied to determine whether the law of fine art was fully satisfied in any modern English poem. The critical tests usually applied were not strict enough. For example, it was often concluded that if a poem was popular it must necessarily contain the element of the Universal; but this was not so, because, though the

Universal must always be in the truest sense of the word popular, yet public opinion was swayed by transient impulses and emotions, and was far more likely to be fascinated by obvious superficial qualities than by the union of contrary qualities, which was the mark of genuine classic work. On the other hand, it was just as often supposed that singularity in expression was an indication of that character which is the sign of genius; but this again was a fallacy, because such a style implied an excessive attention to some one particular principle, instead of to the harmonizing of opposite principles; and from singularity of this kind arose mannerism and affectation. The true mean in conception and expression lay between the two extremes of popularity and singularity. In order to judge whether a modern English poem was rightly conceived, it should be measured in its relation to English poetry as a whole; it ought to leave on our minds the impression that if Chaucer, or Shakespeare, or Milton, or Tennyson had been dealing with the same subject, they would have conceived it in the same spirit and with the same broad view of the hereditary conflict between the principles of ideal thought. So, too, with regard to expression, a modern poem ought to show a family likeness to the great classic poems of England in its power of condensing contrary ideas into terse and epigrammatic language. For this hereditary family likeness might be discovered in all English classic poems, whatever might be the date of their composition, as was shown by such lines as "Uneasy lies the head that wears a crown," "They also serve who only stand and wait," "A man so various that he seemed to be Not one, but all mankind's epitome," "Man never is, but always to be, blest," "The paths of glory lead but to the grave," "Who would be free themselves must strike the blow." In all these lines the total effect produced was simple, natural, universal; and yet the individual character was strongly marked, and the means adopted to produce the effect very complex. Such a reconciliation of opposing qualities was the universal condition of all fine art.

The Uses of Practical Geography.

At a meeting of the Royal Geographical Society held in the theatre of the University of London a paper was read on "The Uses of Practical Geography, as illustrated in Recent Frontier Operations" by Sir T. H. Holdich. He began his paper by stating that all good geographers would rejoice in the fact that a school of geography was likely to be started in the University of Oxford, the first school of its sort that had ever been inaugurated in England. A practical knowledge of geography was of immense importance to our national business, whether commercial, military or political. That a knowledge of geography most intimately affected naval and military matters needed no demonstration, but when they turned to the civil, particularly the commercial, side of the question, it was still a surprise to him that the value of full geographical knowledge had not been more widely recognized. It was in those international negotiations and agreements which concerned the political *status* of great countries and determined their boundaries and the respective limits of their responsibilities that the danger of inaccurate geographical knowledge was perhaps the greatest and the results of it the most disastrous. The present period in our history had been well described as the boundary-making era, and it was likely that the widest geographical knowledge would prove the best safeguard against misunderstandings with other nations, and would at once dispose of such false estimates of the value of portions of the world's surface here and there as had occasionally brought England perilously close to war. It was his belief, looking back over the boundary episodes of the last 20 years, that the greater part of the political difficulties that had arisen in connection with boundary demarcation had been due to a want of appreciation of the necessity for a sound geographical basis to the text of treaties and agreements. The lecturer proceeded to give instances of actual occurrences where either want of definition, inexact definition, or positive geographical ignorance had led to complications, which involved not only delay and its attendant expense, but political misunderstandings and irritation which, he stated, had not in some cases disappeared to this day. He proceeded subsequently in some detail to describe the methods which, in his opinion, should be employed in order to attain the necessary accurate geographical knowledge. It was much easier than was generally supposed to get accurate maps, and he spoke from experience when he said that in matters commercial or political it was the shortest as well as the cheapest way to the desired end. He wished to draw a sharp distinction between accurate geography and the geography of the traveller or prospector, who was content with what fell under his immediate observation in certain limited areas. For public business purposes very much more was wanted than that; they wanted sound square geographical maps, of which the topography should be equally balanced all over the map, and in which the whole mapping should be based on systematic measurement, the correctness of which could be proved. The only way he knew of attaining such mapping was to triangulate first, and to complete the topographical details on the basis of triangulation. By triangulating the country every point on a boundary line, every peak in a mountain system, every landmark of any importance in the country side was given a value, the correctness of which could be proved just as easily in a London office as in the open field. In his opinion a survey without a mathematical basis was no survey at all.

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Bombay University Terms.

To the Editor, "Bombay Educational Record."

DEAR SIR,—My attention has been drawn to a contribution in the April number of the "Educational Record" on the subject of Bombay University Terms. Though, perhaps, a good many points in the learned writer's views will meet with no contradiction, yet a growl seems to be needed at certain places. I quite agree with your learned correspondent when he declares that many matters connected with the University of Bombay are beset with difficulties, and here, in substantiation of the writer's statements, I may only name the devil-may-care sort of way in which those who have the good fortune to be appointed examiners set about their task of looking over the papers of the candidates. A plan was, undoubtedly, suggested a few years back of remedying the inconveniences and misfortunes resulting to the candidates from this source by appointing moderators and assistant examiners, as in a great many Universities of the educated world.

But to return to our subject. If I understand your correspondent aright, the complaint seems to be that while the Colleges of the Presidency enjoy the enviable benefit of imparting instruction to the students at a time (and, *ergo*, in a manner) which is most suited for the purpose, the Sind Arts College stands "alone, unfriended, melancholy" in having the sulkiest of weathers as the period prescribed for coaching the benighted young Amils for the University terms at the end of the year. As the case of no other college in the Presidency has been quoted showing that it is also at a very similar disadvantage, I must infer that your correspondent's "other parts of the Presidency" only refer to Sind and, so far, to Sind alone. Well, then, I suppose, that the University must set itself the task of annihilating the misfortunes to which young (?) Sindhi students are subjected by the inclemency of the weather.

Those who go by the name of college students, however, were always, ere this, pictured to our mind as possessed of a certain amount of manliness and self-reliance; but if such pleas as hot weather and dry seasons seem to interfere so much with either their bodily physique or mental vigour (or, for the matter of that, both together), very little confidence can safely be placed in such qualities as these types of humanity were reputed to possess in a remarkable degree. If, perhaps, the students whose homes are in the upper and, in consequence, hotter parts of Sind, are a surprisingly long time in accommodating themselves to the climate of Karachi, well, then, the only other recourse that remains is that such fragile specimens of human nature should betake themselves for purposes of University education to a place, such as Bombay, where the existing arrangements of the University seem to be better adapted to their constitution, in the opinion of the learned writer.

Granting, however, that the plea of your correspondent in favour of a different arrangement of terms for the Sind College is approved of by the University, it will not be long before another complaint comes forward in the shape of enormous expense incurred in travelling all the way from Shikarpur or Hyderabad down to Karachi, and back again, or the still greater expense of house-accommodation and messing in a place to which they must, for their life-time, suppose themselves new. Will then the University consent with its usual benevolence to supply the Sindhis, marked as they are by their Uriah Heepish snigger, with free pack-horses, and charitable breakfasts? For, before you have granted one request, you must have another on your hands.

MAZETTO.

* * *

Educational Notes.

Mr. Paranjpe, of the Fergusson College, Poona, has come out Senior Wrangler in the Cambridge Mathematical Tripos.

There will be widespread gratification in India at the fact that the Senior Wranglership has been won by an Indian student. Mr. Paranjpe—a Konkani Brahmin—comes from a college whose critics have not always done justice to the self-sacrificing devotion of the men at its head, who have for years worked for it on mere subsistence wages. These men will look upon the distinguished success of one of the *alumni* of Fergusson College as a substantial reward for their public-spirited labours. Mr. Paranjpe's success, perhaps, comes less as a surprise than the distinction obtained a year or two since by Professor Bose, for the field of physical science is stranger to a Bengali than that or mathematics is to the Brahmin intellect. However that may be, Englishmen will readily sympathise with the feelings with which their Indian fellow-subjects will regard the distinction that has come upon one of their race. To the average Englishman of liberal mind it will seem to be a breaking of new ground, to be looked upon much in same spirit as that in which we hailed the first Nonconformist Senior Wrangler, as a proof that the greater academic distinctions of the Empire are open to all its subjects. Such an incident indeed evokes an honest and innocuous Imperialist spirit, reminding us as it does that there are more ties than one that unite the scattered fragments of the Empire.

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The Principal of the Fergusson College has received the following telegram from the Private Secretary to the Viceroy :—

"Viceroy desires to congratulate you as the Principal of the Fergusson College upon the brilliant success attained by a former pupil of the College in carrying off the blue ribbon of English Scholarship. Such a triumph is a wonderful tribute, both to the teaching of the College and to the capabilities of the most highly trained Indian intellect."

The following is the text of an address which the students of the Fergusson College adopted on Wednesday and posted to Mr. Paranjpe by the last mail:—

Sir,—We, the fellows and students of the Fergusson College, Poona, crave leave to offer you our warmest congratulations on the signal and most wonderful success which you have achieved. You are the first Indian to attain the position of a Senior Wrangler, and the whole country has naturally reason to be proud of you. But what enhances the value of your achievement in our eyes, is the fact that you are an old student of this College; and that you have already decided to give the best work of which you are capable to this institution. This combination of the highest intellectual attainments, with a magnificent spirit of self-sacrifice and devotion to your old College, is perfectly unique, and it illustrates to what heights the Indian character is still capable of attaining. We feel that your success is our success, and that we are all raised in you. The elevating example which your life affords will be a standing source of high inspiration to your countrymen. It will, indeed, be a proud day for this College when you come back, and occupy the place which you have already marked out for yourself in it. May you have health and happiness, and may your future be a worthy continuation of the glorious record which you have established for yourself, is the fervent prayer of your loving friends and pupils.

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THE HARI GOPAL PADHYE PRIZE.

We learn that, in accordance with the desires of the late Mr. Hari Gopal Padhye, his nephew, Mr. D. G. Padhye, has, as his executor, handed over to Government Rs. 1,000 in Government Promissory Notes for founding a prize, which shall, to quote the Government Resolution in this behalf, "be awarded annually to that student of the Dekkan College who passes the B. A. Examination of the University of Bombay, with Logic and Moral Philosophy as his voluntary subject, and who, on consideration of his progress in class and the marks obtained by him in the subject at the College Examinations and the University B. A. Examination, is pronounced, by the Common Room Meeting of the Professors of the Dekkan College, to have been the best student of the Logic and Moral Philosophy class of that College; provided that no candidate shall be eligible for the prize who does not pass his B. A. Examination within five years after his passing the Matriculation."

Mr. D. G. Padhye has also given effect to another death-bed wish of his uncle by handing over to the Government of the Central Provinces Rs. 2,000 for founding a prize to be annually awarded to a graduate of not more than three years' standing from the Province, who writes the best essay on a subject connected with the Natural Sciences, the essay to be written either in English or in Marathi or Hindi. The late Mr. H. G. Padhye was educated at the Dekkan College, but passed his life in Government service in the Central Provinces. Hence, both the places came in for a share of his commendable charities.

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Government has decided that it cannot afford State support to the promotion of Presidency athletic and cricket tournaments. It has been proposed that the organization of a whole series of tournaments, ranging from Municipal to Presidency ones, should be undertaken by the ordinary officials in the service of Government or of Municipalities. Thus the Collector of a district would have been expected to run a tournament for his collectorate and, perhaps, also another for the division in which his head-quarters were located. It was not suggested that the Collector should be paid for his extra work, nor that any compensation should be given to Government for the valuable time that he would have to spend over the necessary arrangements. It does not seem to have struck the proposer of this scheme that more than half the value of athletic tournaments lies in their spontaneity. In all local centres of sufficient importance to have a part in or be the scene of a tournament there should be private individuals whose energy and keenness on sport should enable them to do what is needed in the matter. If there is no one else to take the lead, officers in their *private* capacity might, and often do, render valuable assistance. But where the material is not forthcoming voluntarily, it is useless to expect it to be produced at the *mot d'ordre* of an official.

We have received from the Secretary of the Research Institute for India a pamphlet containing abstracts of the opinions of some seventy odd gentlemen regarding the scheme. On the whole, the majority is in favour of it, but with many and various modifications. The location generally preferred is the Bombay Presidency, though opinions are divided whether the new institution should be actually placed in Bombay City or in some provincial town of more salubrious climate. The most common criticism of the scheme was that it seemed to halt between a teaching University proper and a Technical and Scientific Institute, but whether both or either of these was, under present conditions, desirable or practicable was a question on which the greatest diversity of sentiment appeared. In spite of the necessary inconclusiveness of such a production, this collection of abstracts is extremely useful and interesting, and its clearness, thoroughness and general impartiality reflect much credit on those who have had a hand in it.

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In Sind during the month of May the plague, as was expected, had reached its climax, and is now rapidly disappearing both from Hyderabad and Karachi. In the latter town it has been very severe, more so for a space than even in the previous year, but its ravages have been well kept under up-country. In Karachi it has been necessary to close the schools, and the High School has been converted temporarily into a hospital for plague convalescents. Unfortunately, now that plague has been got rid of (or nearly so), cholera in its turn has broken out, and a very fatal epidemic has devastated the camp of Mekranis outside the city. Thanks to the unremitting efforts of the medical and civil authorities, the disease has been confined to this camp, and the city is practically free. However, two masters in the Sind Madrasseh have succumbed to it. The origin of the outbreak is variously attributed to the drinking of foul well water and to the eating of unripe and over-ripe melons and other vegetables. These Mekranis are very poor, very badly nourished, and very dirty, and the effects of rotten fruit and sewage-polluted water when taken into their systems can hardly be expected to be other than fatal. In so far, however, as the incident has taught a certain class of natives the value of clean pipe-water, the epidemic will not have been wholly without good.

The eagle eye of the Editor of *Truth* has now lighted upon the Indian Educational Department, and Mr. Labouchère is proceeding to "show up" the shortcomings of the Madras Law School. If his information is to be relied upon (and this is a very large *if*), there is a good deal in that institution which requires reform. Three hours a week cannot be considered a high minimum (or was it maximum ?) of work, even in the case of a "Government Professor"! And when a Principal is paid Rs. 1,200 a month, it seems only fair that he should subordinate the interests of his private practice to those of the College, even if he cannot give himself exclusively up to the latter. The Madras Director of Public Instruction has prepared a scheme of reorganization in which the staff is to be a "full-time" one. The Madras Government, however, if *Truth* is to be believed, refuses to accept it out of deference to the private interests of the present incumbents. If this is really the case, and if it be remembered that in the Educational Department proper (to which nominally these Law Professors belong) "private practice" (in the way of coaching, tutoring, &c.,) is *strictly* forbidden, the matter falls little short of a gross scandal.

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That the sources of information tapped by *Truth* are not always reliable is apparent from another reference to the Indian Educational Department. This time the subject of attack was Bombay, and a correspondent waxed unnecessarily indignant over a certain appointment to a "philosophical chair" in the Presidency College. That for such a post a first-class man is necessary is obvious, but it is, or should have been, equally obvious that first-class English University men are not to be picked up at a moment's notice in Bombay streets. The vacancy was a temporary one, produced by various departmental changes, and it was temporarily filled in a way that was presumed would be best in accordance with the general needs of the College. No doubt, *Truth's* correspondent forgot to make the temporary character of the appointment clear.

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Mr. Michael E. Sadler, who directs a section of the Education Department in England, has issued the second and third volumes of Special Reports. From them we give a few selections which may incite to further reference :—

"Perhaps, the greatest difficulty in dealing with pupils in classes is the fixing of an average standard of attainment. We all know that schemes of work may be planned in theory for children of different ages, but we know equally well how great are the variations of mental capacity, bodily strength, and life-circumstances. Hence the immense help in the apportioning of intellectual work of an intimate knowledge of our pupils. How important is it that we should know that our daily demands are well within the powers of, say, a rapidly growing child (whose health may be a cause for anxiety), and, on the other hand, how equally important is it that, with the certificate of normal health to guide us, mental indolence should not be condoned."

"The objects of teaching physical exercises in schools are to provide a means of recreation under discipline, and to raise the general standard of health by quickening the circulation, increasing the breathing capacity, promoting nutrition, facilitating the elimination of waste products from the system and increasing the volume and power of the voluntary and the functional capacity of the involuntary muscles, thereby promoting all-round bodily development and growth."

"The object of training is not to supply the student with a ready-made 'system' of precepts and rules, but far more *to cultivate a habit of mind.*"

"The commonest fault that is charged to trained teachers is that they do their work in a mechanical spirit; they have learned a system and adhere to it under all conditions."

"The aim of education is fundamentally an ethical problem; it concerns and is determined by 'the man in the street' as much as by the teacher."

"Teaching is the weakest side of schools. The whole moral demeanour of a pupil is often changed for better or worse by getting into a particular form. Under one who is really a teacher his whole nature may be raised; faults slink ashamed into the back-ground, unexpected virtues arise and grow, though no single word of direct moral teaching may be uttered. How often is it noticed that a pupil will cheat one teacher without compunction while shrinking with unimaginable shame from the thought of cheating another."

"The Germans have at present no intention of giving up their classical schools. They have too great faith in the humanizing influence of the study of Latin and Greek. But they are fully alive to the fact that it would be fatal to bring up any section of the nation as strangers to the modern spirit and to those influences which have produced and are still moulding neighbouring nations."

"The only language which a boy learns in the lowest classes of the Frankfurt classical schools is French. If this is to be taught in the most natural manner possible, the first requirement is that the teacher should be able to speak French fluently. Were this enforced in secondary schools many of those at present engaged in teaching French to the younger boys would be immediately disqualified."

"Allowing for variations in the prominence given to different aspects of the new teaching, its principal features may be summed up as follows:—(1) Purely oral teaching at the beginning; (2) the use of the foreign tongue as much as possible at first and throughout; (3) the absolute or partial exclusion of translation from the native into the foreign tongue, except in the higher classes; (4) the reduction to a minimum of translation from the foreign tongue into the mother tongue; (5) the extensive use of pictures in the younger classes and generally as concrete a way of putting things as possible; (6) the extensive teaching of *Realien, i.e.*, the life, customs, and institution, geography, history and literature of the foreign nation; (7) constant conversations on the reading-book, either in the form of preparation, or, more frequently, by way of revisal; (8) the use of the reading-book as material for learning grammar inductively."

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Sir Arthur Rollet, M.P., at a meeting of the Society of Arts, speaking of the consular reports which have been published from time to time, said:—My own experience has confirmed these consular complaints, sometimes humorously. I have heard a Yorkshire merchant ask in a foreign shop for a kilometre of polony—upwards of half a mile of it, and an experience of an Alderman, manufacturer, and merchant, who spoke nothing but English, was thus told me by himself:—I went to Paris staying at the Hotel de Lille et d'Albion. Never having been before, I lost my way, and could not find my hotel again, because I neither spoke nor understood French. Thinking some of the people I met might understand written English, I went into a stationer's shop and bought a large card, on which I wrote, "Please tell me the way to the Hotel de Lille et d'Albion." Again I sallied out showing my card to several, but still to no purpose. At last a gentleman read it, and silently beckoned me to follow him which I did as silently for a mile or more. Then he pointed, still silently, to the sign of the Hotel. And when I saw it I broke the silence by exclaiming, "Thank you." "What," he replied in amazement, "are you an Englishman? So am I, but I took you to be deaf and dumb."

Reviews.

SIR W. HUNTER'S HISTORY OF BRITISH INDIA.

(Paper II.)

One of the most interesting chapters in the volume is that which deals with the early trade routes to India and with the relations between India and the ancient powers of the Mediterranean and Asia Minor. It is true that Sir William is not always here within his depth and that he is often compelled to rely upon the labours of others without always having quite assimilated the products of those labours. It was perhaps a consciousness of this weakness that led him to enter into such unnecessary detail in his account of the Israelitish kingdom. No doubt the latter is of great importance in a consideration of the growth of economic civilization, and as such Prof. Cunningham has afforded it full recognition in his "Western Civilization." But he is careful to point out, what apparently Sir W. Hunter does not realize, that the brilliant epoch of Solomon was but an episode, and a short one in the history of the Israelites, and that it was not altogether in harmony with what is now understood to be a permanent feature in their national character. The Hebrews are not a great industrial race in the truest sense, nor have they indeed the highest commercial capacities. Exceptions of course can be found, but as a rule the race is one of the retail traders, brokers and financiers. It is useless to magnify the importance of Solomon's kingdom (Empire it was not) as a connecting link between Europe and India. The accident that the Bible narrative has rendered the public more familiar with this section of history than with less accessible facts appertaining to Egypt, Persia and Greece is little justification for the disproportionate attention paid to the former.

When he comes to classical history and literature the author is too prone to accept, apparently at random, one out of many possible theories, and either to publish this without comment as if uncontroverted, or else to relegate to a bald summary in a note all other competing views. Instances may be found in the ready credences which he lends to the Sesostris legend as retailed by Herodotus in the ascription of the "Erythræan Periplus" to a date "between 80 A. D. and after 161 A.D." (p. 43) (whatever this verbal tangle means), in the innocent belief in the existence of a real Hippalos who "discovered" the Monsoons, and so forth. Graver misconceptions are implied in the representation of Egyptian and Persian maritime enterprise as commercial and in the statement that "the dawn of history discloses the Syrian trade routes in the hands of Semitic races." The one takes no account of the caprice and land-hunger inherent in Oriental despotisms and the other betrays a very suspicious vagueness in the writer's ideas anent the early Babylonian civilization. It is also difficult to understand why the effects of the prolonged Persian occupation of Egypt are not noticed and why hardly a mention is made of the early Greek Black Sea and Crimean Colonies in connection with the northern trade routes. Lastly in regard to the relations of East to West, and to the knowledge which Europe had of India, the difference brought about by the conquests of Alexander and the subsequent establishment of Greek kingdoms in Afghanistan and India might have been very much more clearly and strikingly elicited. In spite of the command of the trade routes, which Sir W. Hunter attributes to Rome, the barbarian had already begun to close the lines of communication, when Parthia and the Scyths triumphed over the remnants of Greek civilization in Bactria and the lands south of the Hindu Khush.

For the rest, we could have desired a fuller treatment of that mysterious northern route to Central Asia, the more so in the light of the recent discoveries of Sven Hedin. This intrepid Swedish traveller has traversed the whole length of that route, and, following in the footsteps of Marco Polo, has crossed the desert of Gobi and thence penetrated to the capital of China. In the desert he found traces of at least two ancient cities now ruined and buried in the sand. On fragments of walls which he disinterred were paintings in colours representing men and women feasting, praying or following the ordinary avocations of Eastern life. These people were dressed in clothes not unlike those of the Hindus, their physiognomy was, if not Hindu, at least not Mongolian, and on their forehead was the *tilak*. Objects of clay and terra cotta recovered from the drifting sand showed equally Hindu traits, and, strangest of all, in one or two instances, distinct reminiscences of Hellenic style and grace. Whatever the date at which these cities flourished, it seems safe to assert a close connection between them and India, the India of the Greek and Buddhistic period; nor does it seem unreasonable to suppose that they must for a time have had access to the West along the northern highway. And if this is the case, then we arrive at a triangle of communication between South-East Europe, India and Chinese Turkestan.

In regard to the more modern periods with which the first volume deals a good deal in a general way has been said in the first part of this article, and there is little more that need be added. As Sir William draws nearer to the 16th and 17th centuries he becomes surer of his ground and is more at home among his facts, and there is little occasion to quarrel either with these or with the conclusions he deduces from them. He does the Portuguese full justice both as to their good and their evil deeds. He also makes very clear how farcical were the Portuguese pretensions to the land Empire of the Indies. But perhaps he hardly brings out sufficiently clearly the one great cause of Portuguese failure. Portugal failed in the Indies not from lack of heroes, but from lack of men. She had grasped at more than she could hold and the effort to retain it drained her of her life-blood. The colonies had become sinks of corruption it is true, but that was because they were occupied by a scum of lascivious and worthless half-breeds. Given garrisons of *pukka* European Portuguese, properly paid and properly relieved, there seems no reason why the Portuguese power should not have withstood both the Dutch and the English for at any rate another century. But the men were not forthcoming. In Bassein there seems to have been a purer strain of real Lusitanian blood, and luxurious and priest-ridden as the town is proved by its very ruins to have been, the Portuguese there made a better stand against the encroachments alike of Europeans as of natives than elsewhere. That Goa, Diu and the rest have not suffered the fate of Bassein is no testimony to the superior valour of their inhabitants.

Sir W. Hunter seems in his heart to prefer the Dutch to the Portuguese, possibly because they were more practical and more Protestant. But whatever may be said of the virtues of the Dutch, their expeditions lacked the romance and the high ideal of the earlier ventures of their rivals. Cheese and beer, spice and pence, to these material elements of a severely practical creed the Dutchmen pinned their faith. The instinct of Dale, the English admiral, was sound enough. The English adventurers were merchants and gentlemen, the Dutch *boers* (boors, bauern, peasants) converted into sea-going hucksters. Crude as were the principles of commerce everywhere then, the Dutch practice was even narrower and cruder than the prevailing commercial principles. For a space indeed their selfish and hide-bound policy triumphed, but the success thereof has little justified it. A modern parallel is not far to seek in the Transvaal, but both there and in the famous Spice Islands the end is not yet. As Spain has been swept from the Philipines, as the burghers were forced from Cape Colony, so both Transvaal and Malayan Empire must pass from those who refuse or are unable to enjoy them rightly.

J. G. C.

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THE HISTORY OF SCOTLAND.

By P. Hume Brown, M.A., LL.D.

This volume forms one of the Cambridge Historical Series, which is being edited by Dr. Prothero, Professor of History in Edinburgh University. This series designs to sketch the history of modern Europe from the 15th century downwards in order to give a real grasp of present political conditions. The book under review does more than this, and most fortunately so. There is (why, we have never understood) no recent, reliable and compact general history of Scotland corresponding to any of the many such works on English history. Fraser-Tytler, Burton and Skene no doubt there are: Robertson is a classic and deservedly so. But none of these are really reliable, we will not say, "up to date," since that is no fault of theirs. And moreover all of them are marred by a fault which we had come to regard as ineradicable in Scotch historians, the excess of what the Germans call "lokal patriotismus." Dr. Brown's work is singularly free from this: he can appreciate the virtues of Scotch valour and the picturesqueness of Scotch history without being led even into the *suppressio veri.* Particularly good in this respect are the estimates of Wallace and Bruce. The portion dealing with the earlier Celtic and Roman periods is exceptionally clear and interesting, and the growth of constitutional rule in Scotland is carefully traced. The book should be very useful in English schools and colleges, and even in India it might be used with advantage as a supplement to the prescribed English histories. The present volume carries the reader to the end of the reign of James V.

EARLY ENGLISH HISTORY.

This is one of Bell's "History Readers" and is intended for young children. It covers the period "from the beginning" up to the Norman conquest. The style is clear and simple and the matter put in an interesting way. The type is also very good and distinct. The book is freely illustrated, but we cannot say much for the execution of the artist's drawings. No doubt the early Saxon "of pot-bellied equanimity" was not a beauty, but we trust our ancestors were not quite the hideous ruffians that they appear on page 47. Ruffians perhaps, but why so very plain?

CHARLES KINGSLEY.

BY DEAN STUBBS.

This is another of the Victorian Era Series and Dean Stubbs accordingly treats his subject from the standpoint set by that series. Thus Kingsley's life is discussed and explained in connection with the Christian social movement. Perhaps this last phrase may seem misleading to a few, and we hasten to explain that Kingsley, though a Christian, was not a Socialist! Nor did he even tend to the views which Tolstoi has made current in the latter part of the present century. He found agrarian and social problems facing him in the course of his ministry and he tackled them from the point of view of common-sense tempered by the poetic sense that was inherent in him. All this Dean Stubbs has dealt with in a careful if not very inspiriting manner; what he has not given us is a study of Kingsley's position as regards other schools of religious (and especially of Anglican) thought of the time. Also a consideration of Kingsley's place in literature is rather to seek, but perhaps the Dean conceived that the particular scope of the series precluded this.

* * *

Books Received.

Messrs. George Bell & Sons.—The Chiswick Shakespeare. 1*s.* 6*d.* net each.

The Merchant of Venice, with an Introduction and Notes by John Dennis.

Hamlet, with an Introduction by John Dennis.

Messrs. A. & C. Black.—Black's Classical Series, General Editor Geo. Smith, M.A. Homer's Odyssey, Book IX, edited with Introduction and Notes by A. Douglas Thomson, M.A., D. Litt., Lecturer in Greek in the University of Edinburgh. Price 2*s.* 6*d.*

Sir Walter Scott's Continuous Readers, Ivanhoe, edited by J. Higham, M.A., Assistant Master, Carlisle Grammar School. Price 1*s.* net.

Messrs. Blackie & Sons.—The Raleigh Geography Reader V. 1*s.* 6*d.*

Blackie's School and Home Library. Ned Myers. 1*s.*

Elements of Prose, by W. A. Brockington, M.A.

Cambridge University Press.—English Etymology, a select Glossary serving as an Introduction to the History of the English Language, by F. Kluge and F. Lutz. Price 5*s.* net.

Messrs. Longmans, Green & Co.—Benjamine, by Chas. Deslys, edited with grammatical and explanatory notes and comprehensive vocabulary by F. Julien, 1*s.* 6*d.*

Mechanics applied to Engineering, by John Goodman, Wh. Sch., A.M. I.C.E., M.I.M.E., Professor of Engineering, Yorkshire College, Leeds. Price 7*s.* 6*d.* net.

Messrs. MacMillan & Co.—Graduated Test Papers in Elementary Mathematics: Modelled on Subject V, Stage I, of the Science and Art Department Examinations, by Waller J. Wood, B.A. Price 1*s.*

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N.B.—Subscribers who have not yet remitted their subscription for the past year are requested to kindly send it without further delay or arrears rate Rs. 6 will become chargeable.

Notifications.

PERMANENT NOTIFICATION.

No. 3959 OF 1898-99.

POONA, OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
19*th September* 1898.

The Bombay Educational Record and Literary Journal.

The Educational Department is not responsible for anything which may appear in this publication unless over official signature.

E. GILES,
Director of Public Instruction.

The subjoined Government Resolution, Educational Department, No. 217, dated 25th February 1899, is published for the information of Educational Officers.

Poona, Office of the Director of Public Instruction, 7th March 1899.

E. GILES,
Director of Public Instruction.

Schools.—

Government Law School.

Reorganization of the—

Educational Department.
No. 217.

Bombay Castle,
25th February 1899.

READ AGAIN—

Government Resolution No. 249, dated the 25th February 1898.

Appointing a Committee to inquire into the condition of the Government Law School.

Government Resolution No. 253, dated the 25th February 1898 (paragraph 2).

Directing that the Syndicate of the Bombay University should be informed through the Registrar that His Excellency the Governor in Council would defer consideration of the question of authorization of the "Bombay College of Law," under Section XII of the Act of Incorporation, pending the receipt of a report from the Committee which was being appointed to inquire into the working of the Government Law School.

Letter from the Principal and Professor of Law Government Law School, Bombay, No. 13, dated the 6th April 1898.

Letter from the Registrar, Bombay University, No. 178, dated the 17th May 1898.

Submitting, with reference to paragraph 2 of his letter No. 2117, dated 2nd February 1898, in which authorization by Government of the "Bombay College of Law" under Section XII of the Act of Incorporation was requested, copies of a statement of the teaching staff of the proposed College received with the application for recognition and of two subsequent letters intimating changes in the staff.

Letter from the Honourable Mr. E. Giles (Chairman) and others, Members of the Committee appointed to inquire into the working of the Government Law School, No. 1141, dated the 31st May 1898.

Stating, with reference to Government Resolution No. 249, dated 25th February 1898, that they have made the necessary inquiry into the condition of the Government Law School; and submitting a report as the result of their inquiry.

Letter from Mr. Chimanlal H. Setalvad, Secretary, Managing Board, Bombay College of Law, dated the 20th June 1898.

Inviting attention to the application made in January 1898 by the Syndicate of the Bombay University for authorization by Government of the "Bombay College of Law" under Section XII of the Bombay University Act XXII of 1857; and stating that all the arrangements for working the institution have been completed, and that the Board venture to hope that His Excellency the Governor in Council will be pleased to authorize it under the abovementioned Section at an early date in order to enable the Managing Board to open the classes, if possible, in that term.

Letter to the Government of India, Home Department, No. 1080, date the 1st September 1898:—

"With reference to the correspondence ending with this Government letter No. 1541, dated 23rd July 1890, I am directed to address you on the subject of the improvement and development of the Government Law School, Bombay. The scheme submitted by this Government to the Government of India in 1890 for the improvement of the school involved an additional expenditure of Rs. 7,444 a year from Provincial Revenues, and the Government of India declined to sanction it unless fees were largely enhanced and the school made self-supporting. In February last the question of re-organizing the school was again pressed on the attention of Government in connection with a resolution of the Senate of the Bombay University that the 'Bombay College of Law,' be recognized in the Faculty of Law and that Government be requested to authorize the College under Section XII of the Act of Incorporation. In the course of the discussions in the Senate the Government Law School underwent severe criticism and the promoters of the new College, who are well-known Advocates and Pleaders of the High Court, contended that the proposed institution was meant to supplement the deficiencies of the Government Law School. His Excellency the Governor in Council appointed a Committee to inquire into the condition and working of the Government Law School and to make any suggestions or recommendations they might consider desirable for the improvement of the efficiency of the School. The Committee have now submitted their report, a copy of which is herewith forwarded for the information of the Government of India.

"2. The Committee included two of the promoters of the proposed new institution and was thoroughly representative of expert legal opinion. His Excellency the Governor in Council thinks that he cannot do better than accept, as a starting point for reform, the unanimous conclusions of this Body. * * *

"3. It will be seen from the report that the proposals of the Committee are based on the assumption that the Government Law School must be self-supporting, and in Clause VIII, page 5, of the report they have succeeded in showing that the proposed scheme can be carried out without throwing any burden on the Provincial Revenues. Surplus fees of the school legitimately appertaining to it and essential to the successful achievement of the object of its existence have of late years, without any sufficient justification, been diverted to other purposes. The proposal of the Committee that these fees should hereafter be invested for the school can be carried out by creating a Local Fund for the income and expenditure of the Law School, and His Excellency the Governor in Council thinks that this should be done. I am accordingly to request that His Excellency the Governor-General in Council may be moved to accord his sanction to the creation of the proposed fund under Article 267—Note I, and Article 283—4 (9), Civil Account Code.

"4. I am further to request that the Government of India may be moved to sanction the proposal to raise the allowances of two Professors from Rs. 250 to Rs. 300 per mensem under Article 283, Rule 4 (3) (*a*) of the Civil Account Code, and to recommend the proposal to create three new appointments on Rs. 300 per mensem for the sanction of the Secretary of State (*vide* Article 277 (1), Civil Account Code). The changes are shown in the accompanying proposition statement.

"5. As it is the intention of this Government that the new scheme should be brought into force from the beginning of the next term in November, I am to request that the sanction of the Government of India may be communicated to this Government as early as possible."

Letter from the Director of Public Instruction, No. 3700, dated the 9th September 1898.

Forwarding, with reference to Government memorandum No. 1082, dated the 1st idem, a proposition statement, in duplicate, showing the cost of the changes in the Government Law School recommended by the Committee.

Memorandum from the Accountant-General, No. P.A.—19315, dated the 19th September 1898.

Submitting the above papers; and reporting that the present scale of the proposition statement has been examined and found correct.

Letter from the Director of Public Instruction, No. 3672, dated the 8th September 1898.

Letter to the Government of India, Home Department, No. 1249, dated the 4th October 1898:—

"In continuation of my No. 1080 of the 1st ultimo, asking for the sanction of the Government of India to certain changes in the management of the Government Law School, Bombay, I am directed to report, for the information of the Government of India, that the scheme to which sanction is asked can be carried into effect during the current year by re-appropriation from the sum allotted in the Educational Budget to scholarships, as, owing to plague, stipends are not being regularly drawn. In future years the necessary provision will be made without increasing the Educational Grant."

Telegram from the Government of India, Home Department (Education), No. 317, dated the 6th October 1898.

Telegram to the Government of India, Home Department, dated the 9th October 1898.

Telegram from the Government of India, Home Department (Education), No. 346, dated the 24th October 1898.

Telegram from the Government of India, Home Department (Education), No. 381, dated the 14th November 1898.

Telegram from the Government of India, Home Department (Education), No. 430, dated the 26th December 1898.

Intimating that the Secretary of State has approved of the proposed reorganization of the Government Law

School; and promising a further communication as regards the proposals for the creation of a local fund.

Letter from the Government of India, Home Department (Education), No. 6, dated the 4th January 1899:—

"In continuation of the telegram from this Department, No. 430, dated the 16th ultimo, I am directed to forward, for the information of the Governor in Council, a copy of the correspondence with the Secretary of State, noted in the margin, regarding the reorganization of the Government Law School at Bombay.

Despatch to the Secretary of State No. 345, dated 3rd November 1898.

Telegram from the Secretary of State, dated 13th December 1898.

"2. I am to invite attention to paragraph 4 of the Government of India's Despatch of the 3rd November 1898, and to say that, for the reason therein given, the Governor-General in Council does not approve of the proposed creation of a local fund for the income and expenditure of the School. The Government of India have, however, no objection to a *pro formâ* account being maintained, showing the receipts and expenditure of the School against each other, or to the Government of Bombay entering into any engagement they please with reference to the appropriation of any surplus of receipts that may arise to any particular kind of expenditure."

Paragraphs 3 and 4 of the Government of India's Despatch No. 345, dated the 3rd November 1898, to the Secretary of State:—

"3. The Committee have submitted the comprehensive and carefully considered Report, of which a copy is appended to this Despatch, and the Government of Bombay recommend that effect should be given to their proposals. The main recommendations of the Committee are, that the scope of the lectures should be increased, and their number more than doubled; that tuition should be given in addition to the lectures, that examinations should be held once or twice a term, and that scholarships should be awarded to students of merit. These reforms appear to be well adapted to place the institution on a satisfactory basis. To enable them to be brought into effect, the Committee propose, and the Government of Bombay support their recommendation, that the following additions should be made to the strength and emoluments of the staff of the school :—

(1) that the salary of the two existing Professors should be increased from Rs. 250 to Rs. 300 a month ; and

(2) that three new Professorships should be created on Rs. 300 a month.

"With these additions the Committee estimate that the annual cost of the institution will be as follows :—

	Rs.
1 Principal on Rs. 350 a month	4,200
5 Professors on Rs. 300 a month each ...	18,000
Office Establishment	900*
Books, Scholarships, Prizes, etc. ...	3,000
Total ...	26,100

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* This will be the maximum expenditure. The Government of Bombay propose that the clerk included under this item should be on Rs. 30—4—50 a month (*vide* proposition statement with enclosure No. 2).

"In paragraph 10 of the Committee's Report it is stated that the present expenditure on the school amounts to Rs. 12,768. To meet the additional expenditure, the Committee propose that the fee rates for the classes reading for the second LL.B. Examination should be raised from Rs. 50 to Rs. 70 a year. With this addition to the fees the institution will be self-supporting, and the objection taken to the scheme submitted by the Government of Bombay in January 1890 will thus be avoided. We strongly recommend the proposals for Your Lordship's approval. The Government of Bombay desire that the new scheme should be brought into force from the beginning of the next term, and we shall therefore be glad if Your Lordship will send a telegraphic reply to this Despatch.

"4. At the instance of the Committee, the Government of Bombay propose that any surplus fees received in connection with the school should be devoted to its use, and suggest that for this purpose a Local Fund should be created for the income and expenditure of the school. We do not think that the receipts and expenditure of the school should be excluded from the accounts of public revenue and expenditure, since the institution is managed by the Government in the same way as many other higher educational institutions, and the Professors are (except in respect of their being part-time officers only) as much officers of Government as the Professors of any other public educational institution. We propose, however, to inform the Government of Bombay that there is no objection to a *pro formâ* account being maintained showing the receipts and expenditure against each other, and to the Government of Bombay entering into any engagement they please with reference to the appropriation of any surplus of receipts that may arise to any particular kind of expenditure."

RESOLUTION.—By Government Resolution No. 249, dated 25th February 1898, a Committee consisting of the following gentlemen was appointed to inquire into the present condition and working of the Government Law School :—

The Honourable Mr. E. Giles, M.A., Director of Public Instruction. } *Chairman.*

The Honourable Mr. Narayan Ganesh Chandavarkar, B.A., LL.B.

C. W. Chitty, Esq., B.A., Bar.-at-Law.

R. S. Brown, Esq.

Chimanlal Harilal Setalvad, Esq., B.A., LL.B.

The Committee were requested to embody in their report any suggestions or recommendations they might have to make with a view to improve the efficiency of the Law School. The Report of the Committee is now before Government, and has been the subject of careful consideration. His Excellency the Governor in Council is gratified to note the unanimity in the conclusions at which the representative and experienced gentlemen, of whom the Committee was composed, have arrived. His Excellency in Council recognises that the recommendations are not intended to be exhaustive or final, and that their scope has been necessarily limited by the funds available, and is pleased to accept them without alteration as eminently practical and as effecting such progress as is at present possible towards the provision of a really efficient institution of legal education.

2. The proposals of the Committee regarding the strengthening of the staff are based on the assumption that the institution must be self-supporting. A corollary of this assumption, without which the whole scheme falls to the ground, is that the present number of students must be maintained; and it is, in fact, also found necessary to raise the scale of fees. It would, therefore, be quite inconsistent with an approval of the Committee's proposals for Government to sanction the establishment of a second and rival institution which would avowedly admit law students at a lower rate of fees. Moreover, with the improvement of the efficiency of the existing institution, the principal ground for the establishment of a new Law College will be removed. In these circumstances, His Excellency the Governor in Council deems it inexpedient to "authorize" the proposed "Bombay College of Law" for the purposes of Section XII of the University Act of Incorporation. The Registrar of the University should be informed accordingly.

3. The letter, dated 20th June 1898, from Mr. C. H. Setalvad as "Secretary, Managing Board, Bombay College of Law," might more appropriately have been addressed to the University Registrar, to whom it should now be forwarded for disposal.

4. The sanction of the Secretary of State to the raising of the allowances of two Professors from Rs. 250 to Rs. 300 per mensem and to the establishment of three additional Professorships in the school on Rs. 300 per mensem, should be communicated to the Director of Public Instruction, the Accountant-General and the Financial Department of the Secretariat.

5. As the Government of India object to the creation of a Local Fund for the income and expenditure of the Law School, the institution will continue to be provided for in the Provincial Educational Budget, but the Accountant-General should be requested to keep a *pro formâ* account showing the receipts and expenditure against each other, and to submit copies of it to Government and the Director of Public Instruction in October every year. It must be understood that any surplus income of the School will be held available for expenditure on the School *only*.

6. The Director of Public Instruction should be requested to take measures for bringing the scheme

and new fee rates into force from the commencement of the next term.

7. His Excellency the Governor in Council approves of the proposal to appoint a Board of Visitors. The names of the gentlemen constituting the Board will be published hereafter.

8. The thanks of Government should be conveyed to the Committee for the efficient manner in which they have performed the work entrusted to them.

9. Copies of the Committee's report and this Resolution should be placed on the Editors' Tables.

R. B. STEWART,
Acting Secretary to Government.

NOTIFICATION.

The subjoined Government Resolution, Financial Department, No. 1996, dated the 27th April 1899, is published for the information and guidance of Educational Officers.

Poona, Office of the Director of Public Instruction, 15th May 1899.

E. GILES,
Director of Public Instruction.

Foreign Service.

Orders of the Government of India regarding transfers
of Government Officers to—

No. 1996.

FINANCIAL DEPARTMENT.

Bombay Castle, 27th April 1899.

Resolution of the Government of India, Finance and Commerce Department, Pensions and Gratuities, No. 1282-P., dated 20th March 1899 :—

"The Government of India are frequently asked to sanction the transfer to foreign service, of the first or second kind, of officers who have not rendered the prescribed term of qualifying service, and who are no shown to possess such special qualifications as would justify an exception being made in their favour. In some cases the duties to be performed by them on foreign service involve no special responsibility or capacity, and the only apparent cause of their selection for transfer is their own desire to be transferred. The Governor-General in Council thinks it desirable to call attention to the principles which regulate the transfer of officers to the service of Native States and public bodies.

"2. As explained in Article 805, Civil Service Regulations, the Government of India do not lend their own officers to a foreign employer, unless it can be shown that the latter cannot otherwise obtain competent officers, and that political or public considerations require that the foreign employer should be assisted by the Government. Where these conditions are not satisfied, an officer of the Government, who in his own interests seeks to be transferred to foreign service, must be content to forfeit all claims on the British Government.

"3. When, however, the loan of an officer is justifiable on public grounds, a further question arises as to the particular officer to be selected; and on this point the Government of India have laid down the rule that (with certain specified exceptions) the officer chosen shall have had ten years' qualifying service. It is opposed to the policy of Government to incur pensionary liabilities on account of officers who have abandoned their service. In the case, however, of officers who, by a substantial term of service prior to transfer, have established pensionary claims on the Government, which they cannot without hardship be required to forfeit, the Government accept contributions and undertake a continued responsibility for pension. But they cannot undertake this responsibility, as they have been asked to do, on behalf of officers of only three, two and even one years' service. The limit, which is necessarily an arbitrary one, has been fixed at ten years, and it is desirable that this limit should be adhered to in all but clearly exceptional cases, even though its application may occasionally cause some difficulty in obtaining a suitable and willing officer.

"4. The Government of India also take the opportunity of referring to another point on which misconceptions have arisen. It occasionally happens, especially in the cases of officers on low pay, that an officer is transferred from pensionable service to foreign service or service under a Local Fund, and the necessity for the payment of contribution is overlooked. Many years afterwards, when he is about to retire, it is found that his claims to pension have been forfeited by an omission of which both he and his superiors were unaware, and the Government are asked to accept arrear contributions on his behalf. It is at the same time represented, and correctly, that the case is one of considerable hardship, as the officer may have been transferred as a matter of routine posting, with no increase of pay or other advantage to himself. Again, officers of Government sometimes accept transfer to foreign service on a considerably enhanced salary, and pay no contributions. The presumption is that they understood at the time that their service under the foreign employer would not count for pension, but accept the position in view of the immediate increase of salary. At the end of their service, however, they ask to be permitted to revive their title to pension by the payment of contributions in arrear, or the offer to make such payment is made by the municipality or other body employing them, with the object of rewarding a long period of satisfactory service by the grant of pension.

"5. In almost all such cases the Government of India find themselves compelled to refuse the concession asked for. Pension contributions are paid on principles of insurance, and would at the present rates be quite insufficient to cover the cost of the pensions ultimately payable if they were not levied till it became certain in each case that a pension would actually fall to be paid—just as no insurance company would agree to a life policy being taken out after the subject of it had actually died. The Government, in fact, guarantee the payment of an annuity commencing from a certain age and subject to such conditions as continued service and good conduct up to that age. It is a necessary condition of the acceptance by the Government of this liability that the monthly payments necessary to secure the annuity should be regularly made while the various risks involved, such as that of premature death, are still wholly contingent. Nor can the Government accept the view that the grant of pension in such a case is sufficiently justified by the fact of long and efficient service. It is an extremely rare proceeding to declare, as a reward of good service, that an officer's non-pensionable service should count for pension, and it does not seem advisable to permit that to be done in the case of foreign service and service under Local Boards, which is practically inadmissible in the service of Government.

"6. It is important, therefore, that the exact terms on which an officer is transferred should be considered and explained to him at the time the transfer is made. If it is intended that the right to count service for pension should continue, the payment of contributions should commence forthwith, and the officer should be warned that, if contributions are not paid at the time, arrear payments cannot subsequently be accepted except to the limited extent allowed under Article 832 of the Civil Service Regulations. The latter Article, it may be noted, applies only to the cases of foreign service of the first and second kinds.

"7. Several recent applications have shown that in respect of Article 863 it is necessary to explain that there is no authority for receiving pensionary contributions, arrear or otherwise, from a local body for individual employés selected from among its establishment. The rule in Article 863 of the Civil Service Regulations authorises the Local Government to permit the administrators of a Local Fund to contribute for pensions from the General Revenues for the whole of its permanent employés or for any specified classes of them. It is intended that the contributions should be calculated upon the total of the sanctioned salaries of the appointments in respect of which they are paid, without reference to the question whether the particular individuals who at any time hold the appointments are rendering qualifying service or not. The effect of a transfer to service under a Local Fund in the case of any particular individual is, therefore, that his service under the Local Fund will qualify for a pension from General Revenues if the appointment to which he is transferred is one of a class for which contributions are paid, whether his previous service under Government was qualifying or not; but it will not qualify if the appointment does not belong to such a class.

"8. Finally, it must be remembered that officers transferred to foreign service remain subject to the general disciplinary rules of Government service;* that they may not receive extra remuneration, whether as increased pay or

* Article 806 (v), Civil Service Regulations.

in any other form, without the sanction of the Government of India or the Local Government, as the case may be; † and that no officer, whether European, Eurasian or Native in the service of, or in receipt of a pension from, the British Government may accept a pension or gratuity from the Native State in which he is employed except with the sanction of the Government of India.‡ Accordingly, in the case of a medical officer, the rules§ regulating remunĕration for attendance on Native Chiefs, Nobles and gentlemen of high position in a Native State continue to apply; while, except as provided in the rules last cited, permission is required before an officer who is actually occupying a Government appointment may undertake any duty on behalf of a Native State for remuneration. If the Native State and the officer concerned are subordinate to the same Local Government, the sanction of the Local Government is sufficient; in other cases the sanction of the Government of India is required. The same principle which forbids an alteration of pay also disallows a substantial change of duty without sanction."

† Article 806 (iv), Civil Service Regulations.

‡ Article 840, Civil Service Regulations.

§ Notification of the Government of India in the Home Department, No. 437, dated 25th July 1893.

Circular of the same Department, No. 9 (Medical), dated the 19th October 1894.

RESOLUTION.—Copies of the Resolution of the Government of India should be forwarded to all Departments of the Secretariat and Heads of Offices for information and guidance.

H. S. LAWRENCE,

Under-Secretary to Government.

NOTIFICATION.

The subjoined Government Resolution, Educational Department, No. 608 of 15th May 1899, with accompaniment, is published for the information of Educational Officers.

Poona, Office of the Director of Public Instruction, 27th May 1899.

E. GILES,

Director of Public Instruction.

Provincial Civil Service Examination.—
Rules for the second—.

Educational Department.
No. 608.

Bombay Castle,
15th May 1899.

Letter from the Board of Commissioners for the Provincial Civil Service Examination, dated the 13th May 1899:—

"As requested in paragraph 2 of Government Resolution No. 464, dated the 14th April 1899, we have the honour to forward for approval the accompanying draft rules for the second Provincial Civil Service Examination to be held in January 1900. With regard to the oral examination in English Literature we have ventured to make a reduction in the number of books prescribed in Government Resolution No. 1089, dated the 21st July 1897, as we consider them too numerous for a satisfactory oral examination, and we understand from one of the examiners at the last examination that there were many complaints as to the indefiniteness of the rule as then laid down."

RESOLUTION.—The appended rules for the second Provincial Civil Service Examination are approved, and should be published in the *Bombay Government Gazette* with reference to Government Notification No. 465 dated the 14th April 1899.

R. B. STEWART,
Acting Secretary to Government.

Accompaniment to Government Resolution No. 608, *dated the* 15*th May* 1899.

NOTIFICATION.

No 609 OF 1899.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 15th May 1899.

With reference to Government Notification No. 465 dated the 14th April 1899, the following rules regarding the next Competitive Examination for the Executive

Branch of the Bombay Provincial Service which will be held in January 1900 are published for general information :—

1. Candidates who desire to appear for the Provincial Service Examination shall give notice of their intention to the Secretary to the Examination Board not later than two months before the date fixed for the examination.

2. Every such notice shall be accompanied by a list of the voluntary subjects offered by the candidate, and of the books which he offers for the oral examination in English Literature.

3. It shall also be accompanied by the following certificates :—

(i) A certificate of nationality and a certificate that the permanent residence of the candidate has recently been, for a period of not less than three years before the date of such notice, within the limits of the Bombay Presidency or of a State under the political control of His Excellency the Governor in Council. In the case of residency in British territory, this certificate must be signed by a Magistrate or Justice of the Peace ; and in the case of residence in a Native State by some person of respectability in the State and countersigned by the Political Agent.

NOTE.—The word "permanent" does not exclude short occasional absences from the Presidency. Residence will be considered recent under the rule provided that it has not terminated more than three months before the date of the notice. The certificate must state whether the residence continues, or, if it has terminated, the date of termination.

(ii) A certificate from the Government of Bombay that the candidate's age will be above 21 and under 25 on the date fixed for the commencement of the examination. In the case of a candidate already in Government service, an extract from his service book certified by the head of his department should be forwarded instead of this certificate.

NOTE.—The manner in which certificates of age should be obtained is shown in the rules published in the Notification of the Government of India (Home Department), No. 2252 of August 21st 1888, as amended by Notification No. 404 of May 19th, 1898, printed at the end of this Notification.

Candidates are recommended to make early application to the proper authorities for their certificates of age so as to allow time for full enquiry.

(iii) A certificate of physical fitness for the service of Government from a Civil Medical Officer or from a Medical Officer in charge of a Civil station candidates residing in the Presidency Town being required to obtain such certificates from the Medical Board. In the case of candidates already in the service of Government this certificate is not required.

(iv) Certificates of character from the heads of such schools and colleges as the candidate may have attended, or, in the case of a candidate already in Government service, a similar certificate from the head of his department.

(v) A certificate either :—

(*a*). From the Registrar of the University of Bombay showing that the candidate has passed either the University School Final or the Matriculation Examination with one of the Vernaculars (Hindustáni, Maráthi, Gujaráti, Cánarese or Sindhi) of the Presidency : or

(*b*) from the Head Master of a Public School in the Presidency that the candidate has studied one of such Vernaculars under him for not less than one year : or

(*c*) from the Secretary to the Civil and Military Examination Committee that the candidate has passed an examination in one of such Vernaculars according to the standard prescribed for the Examination of Mámlatdárs.

4. Should the above certificates appear *primâ facie* satisfactory, the candidate will, on payment of a fee of Rs. 50, receive an order admitting him to the examination. But it will be open to the Board, at any time before the appointments offered for competition are actually filled up, to make such further inquiries as they may deem necessary : and if the result of such enquiries as regards any candidate should be unsatisfactory he will be ineligible for appointment to the Provincial Service.

5. The subjects of the examination and the maximum number of marks obtainable in each will be as follows :—

Obligatory.

The following three subjects :—

		Marks.
1.	History and Geography of England and India ...	600
2.	Elementary Mathematics	200
3.	English Literature and Composition	600

Optional.

Not more than three of the following five subjects :—

1. Either Natural Science—not more than two of the following —	
Chemistry	Each 300
Physics	
Geology and Physical Geography...	
Botany	
Or Agriculture together with the Sciences Geology, Botany and Agricultural Chemistry ...	600
2. Mental and Moral Philosophy	400
3. Classical Language—either Sanskrit, Persian, Arabic or Latin...	600
4. Political Economy	400
5. Higher Mathematics	600

The standards of examination in the several subjects will be as specified in the Schedule hereto annexed.

6. Every candidate will be first examined in the three obligatory subjects, and every candidate, who in any of these subjects fails to obtain one-third of the maximum number of marks, will be considered to have failed to satisfy the examiners, and will not be further examined.

7. Candidates, who obtain one-third of the maximum number of marks in each of the obligatory subjects, will be examined in the optional subjects offered by them at an interval of about two months after the examination in the obligatory subjects.

8. The relative merit of the candidates examined will be determined by the total number of marks obtained by them in the two parts of the examination combined, and the result will be reported to Government.

9. Any candidate who does not accept, or resigns an appointment, will be disqualified for any subsequent competition.

SCHEDULE.

I.—OBLIGATORY SUBJECTS.

History and Geography of England and India, viz.:—

		Marks.
General History of England and General Geography.	One paper...	200
Special period of English History	... One paper...	200
Indian History, including special period ...	... One paper...	200

The General History of England may be studied in Bright's History or some similar work ; and that of India in Meadows Taylor's History or some similar work.

The special period of History will include English History from the accession of Elizabeth to the Restoration and Indian History from the accession of Akbar to the deposition of Shah Jehan.

For the special period the following books are recommended :—

Gardiner's History of England, Gardiner's Puritan Revolution, Beesby's Elizabeth, Creighton's Age of Elizabeth, Elphinstone's History of India, Hunter's History of British India, Vol. I, Ain-i-Akbari.

Geography will include the Geography of the British Isles and of India, and of the British colonies and possessions at all periods, but will not include the more advanced portions of Physical Geography.

Elementary Mathematics.

		Marks.
Arithmetic and Euclid	One paper ...	100
Algebra	One paper ...	100

Arithmetic, up to and including vulgar and decimal fractions, proportion and simple interest.

Algebra, up to and including simple equations.

Euclid, Books I and II.

English Literature and Composition.

(English Literature : two papers, 175 marks each ; oral examination, 100 marks ; essay, 150 marks.)

Candidates will be expected to show a general knowledge of the growth and development of English literature, *but the examination will be more especially directed towards ascertaining how far they have studied in themselves the works included in the following list*, though it will not necessarily be confined to these :—

Shakespeare.—King John, Henry IV., Parts I and II, Richard III, As You Like It, Hamlet, Othello, King Lear, Antony and Cleopatra.

Bacon.—Essays and Advancement of Learning.

Milton.—Paradise Lost, Books I—VI, Comus and Lycidas.

Dryden.—Absalom and Achitophel, Part I.

Addison.—Selections (Golden Treasury Series).

Swift.—Gulliver's Travels.

Pope.—Essay on Man, Moral Essays, and Satires.

Goldsmith.—Vicar of Wakefield.

Burke.—French Revolution.

Scott.—Waverly, Ivanhoe, Kenilworth, Woodstock, Peveril of the Peak.

Macaulay.—Essays on Horace Walpole, Burleigh, Addison, Boswell; William Pitt, Earl of Chatham; and Chatham.

Thackeray.—Esmond, Newcomes, Pendennis, Vanity Fair.

Tennyson.—Idylls of the King.

Palgrave's Golden Treasury of English Lyrics.

A considerable number of questions will be set, but candidates will only be allowed to attempt a limited number of them.

For the oral examination candidates will be examined in the following books:—

1. *Shakespeare.*—Hamlet; As You Like It; Richard III; King Lear.

2. The works mentioned of such *three* of the following authors as they may select, *viz.*, *Addison*—Selections; *Scott*—Ivanhoe, Peveril of the Peak; *Macaulay*—Burleigh, William Pitt, Earl of Chatham; *Thackeray*—Esmond, Vanity Fair.

3. The works mentioned above of any one other author they may select.

Under the head of English composition candidates will be required to write an essay on one of several subjects which will be announced at the examination.

II.—Optional Subjects.

Natural Science.—(Two papers and a practical examination, 100 marks each in each Science.) The standards of examination will be about as high as those prescribed by the University of Bombay for the examination for the degree of Bachelor of Science at pages 59 to 66 of the University Calendar for 1898-1899.

Agriculture, &c.—(Four papers, one each in Agriculture 200 marks, Agricultural Chemistry 100 marks, Geology 100 marks, and Botany 100 marks, and a practical examination in Chemistry and Geology 100 marks). The examination in Agriculture and ancillary Sciences will be according to the standard prescribed on pages 83—85 of the Bombay University Calendar for 1898-99, for the subjects I Natural Science and IV Agriculture, for the Diploma in Agriculture.

Mental and Moral Science.—(Two papers, 200 marks each.)

There will be one paper in Logic and Psychology, which may be studied in Mill's Logic and in James's

Text-book of Psychology; and one paper in Ethics, which may be studied in Sidgwick's Methods of Ethics, and in the portions of Martineau's Types of Ethical Theory prescribed for the B. A. degree of the Bombay University in 1896 and subsequent years (*see* page 49 of the Bombay University Calendar for 1898-99).

Classical Language—

		Marks
Prescribed books	One paper.	200
Unseen passages for translation into English. ...	One paper.	200
English passages for translation into the language.	One paper.	200

The first two papers will include grammatical questions.

The books prescribed are as follows :—

Sanskrit—

Bâna's Kâdambari, pages 1—76 (Bombay Sanskrit Series).

Bhavabhûti—Uttararâmacharita.

Annambhatta—Tarkasamgraha.

Mammata—Kâvyaprakásha Ullâsas, VII and X.

Rigveda—The following selection :—

I.—25. 32. 48. 49. 116. 184.
II.—23. 28. 38.
III.—9. 32. 33. 42.
IV.—30.
V.—1. 63. 73. 80.
VII.—61. 71. 77. 86. 95.
VIII.—29.
X.—72. 108. 139.

Samkarâchârya—Vedântasûtrabhâshya, Chapter II, Pâdas i and ii.

Brihadâranyakopanishad, III and IV.

Arabic—

Runnatul-Mathalith-Wul-Mathani, Volume I, Beyrout Edition, pages 1—100.

The Poem "Alburda" by Busari.

Makamat—Sessions (Navalkishore Edition), 35 to 45 inclusive.

Al-Koran—Suras—Mohamed and Victory.

Wakedi—(Egyptian Edition), Book-II, pages 101 to 140 inclusive.

Motanabbi—(Bombay Edition), pages 201 to 280 inclusive.

Persian—

Anwar-e-Suhaili, Chapter II.

Hafez—Odes 351 to 400.

Habeeb-os-Sear—History of Timur (Bombay Education Society Edition, 1891), pages 41 to 120.

Mantiq-ut-Tair by Shaik Fairduddin Attar (Bombay Edition), pages 76 to 225, (*i.e.*, pages 87—257 of Cooper and Cooper's Edition).

Sir John Malcolm's History of Persia, translated by Professor Mirza Hairat, Chapters XIV to XVII inclusive.

Masnavi. The latter half portion of Daftar I and the first half portion of Daftar II.

Latin—

Virgil—Georgics, Books III and IV.
Cicero—De Natura Deorum, Book II, De Oratore II.
Horace—Epistolæ.—De Arte Poetica. Odes I and II.
Tacitus—Historiæ II.

Political Economy.—(Two papers, 200 marks each.) Candidates will be expected to show a knowledge of the doctrines of the leading writers on the subject, and of the Economic History of the United Kingdom since the end of the 15th century. The subject may be studied in—

Adam Smith's Wealth of Nations.
Mill's Political Economy.
Marshall's Political Economy.
Cunningham's Growth of English Industry and Commerce, Volume II.

Higher Mathematics.—(Four papers, 150 marks each.) The subject will include Algebra and all subjects specified for the Intermediate and Final Examinations for the degree of Bachelor of Science of the University of Bombay at pages 57 and 59 of the University Calendar for 1898-99.

R. B. STEWART,
Acting Secretary to Government.

Notification of the Government of India prescribing the manner in which certificates of age should be obtained:—

"No. 2252.

HOME DEPARTMENT.

PUBLIC.

Simla, the 21st August 1888.

The Governor-General in Council is pleased to publish the following rules under which certificates of age will nationality will be issued to natives of India who are candidates for the examinations for the Indian Civil Service held in England :—

General Rules applicable to all Candidates.

I.—A candidate for admission to compete in England for the Indian Civil Service is required before leaving India to obtain a certificate of age and nationality, signed, should he be a resident in British India, by the Secretary to Government of the Province or the Commissioner of the Division within which his family resides ; or, should he reside in a Native State, by the highest Political Officer accredited to the State in which his family resides.

NOTE.—In the case of a candidate who has proceeded to England without obtaining a certificate, the certificate may be granted to his father or guardian, provided that the latter produces the requisite evidence, and, when making the application, states when the candidate went to England, and where he has been residing during his stay in that country.

II.—In order to obtain a certificate, a candidate is required, if resident in British India, to prove the date and place of his birth before the Magistrate of the District in which his family resides, or, if resident in a Native State, before the Political Officer of the State in which his family resides.

III.—A candidate must, if resident in British India, signify to the Secretary to Government of the Province or the Commissioner of the Division in which his family resides his desire to compete not less than three months before the date on which he proposes to go to England. If resident within a Native State, he must signify his desire in like manner to the highest Political Officer accredited to the State within which his family resides. The officer to whom the application is made shall forward it for the purpose of enquiry to the Magistrate of the District or Political Officer of the State in which the applicant's family resides.

IV.—The Magistrate or Political Officer to whom such application has been forwarded shall call upon the candidate to appear and give evidence of the date and place of his birth and of his nationality within one month. He will carefully examine into the value of the evidence given, and forward a summary of it, with certified copies of all documents tendered, and his comments and opinion, to the officer who forwarded the application to him for enquiry.

V.—The documentary evidence which a candidate may be expected to produce comprises—

(*a*) The horoscope.

(*b*) Family books.

(*c*) Tradesmen's account books showing entries relating to the birth.

(*d*) The record of admission in the registers of the school in which the candidate was educated and the record of the candidate's age at various periodical school examinations.

(*e*) If the candidate is matriculated, a certified copy of his application to the Registrar in Form A.

Oral testimony of persons acquainted with the candidate's family or otherwise able to give relevant evidence will also be taken; and the candidate is required to comply, to the best of his power, with any requisition the Magistrate or Political Officer, as the case may be, may make in order to clear up any doubt as to the purport of the documentary proof.

VI.—Any declaration of age made after the application of these rules on the occasion of seeking admission to any University examination, educational institution, or Government office, or otherwise recorded in a formal and deliberate manner, will be taken as conclusive evidence in disproof of the subsequent assertion by the same person that he is of different age to that so declared or recorded.

Rules to apply to Candidates born in Her Majesty's Dominions.

VII.—* If the Secretary to Government, Commissioner of a Division, or the highest Political Officer accredited to the State, as the case may be, shall be satisfied by the papers submitted that the candidate has stated the date and place of his birth correctly, he will issue a certificate declaring that the candidate has submitted the proofs of his birth to the Magistrate of the district or the Political Officer of the State, as the case may be, and has satisfied him that he was actually born on or about the date stated by him, viz., evidence produced by the candidate must be stated in the certificate, which shall be given in the following form:—

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* The rule here given is as modified by the Government of India's Notification No. 404, dated 19th May 1898.

I hereby certify that , who is a candidate for the Indian Civil Service, has submitted the proofs of his birth detailed* below, and has satisfactorily shown that he was actually born on or about the date stated, *viz.*, the day of 18 , at , a place within Her Majesty's Dominions.

* [Here enter details.]

* * * * *

VIII.—If the Secretary to Government, Commissioner of a Division, or the highest Political Officer accredited to the State, as the case may be, finds reason to disbelieve that the candidate was born on the day or at the place asserted by him, the certificate will be refused, and the candidate will be unable to obtain admission to the competitive examination for the Indian Civil Service.

IX.—Where the date and place of birth have been formally registered in a register kept by any public officer in British India, an extract from the register duly certified by the proper official shall be accepted as sufficient proof of the date and place of the birth.

Rules to apply to Candidates not born within Her Majesty's Dominions.

X.—In addition to the particulars required by Rule II, a candidate not born in Her Majesty's Dominions must also prove that he is the son or grandson of a person born in those Dominions.

XI.—* If the Secretary to Government, Commissioner of a Division, or the highest Political Officer accredited to the State, as the case may be, shall be satisfied by the papers submitted that the candidate has stated the date and place of his birth correctly, and has established the fact that, though born without the limits of Her Majesty's Dominions, he is the son or grandson of a person born in those dominions, he will issue a certificate in the following form stating the nature of the evidence produced regarding the candidate's birth:—

I hereby certify that , who is a candidate for the Indian Civil Service, has submitted the proofs of his birth detailed† below, and has satisfactorily shown that he was actually born on or about the date stated, *viz.*, the day of 18 , and that he was born at , a place without Her Majesty's Dominions, but that he is the [illegible] grandson of a person born in those Dominions.

† [Here enter details.]

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* The rule here given is as modified by the Government of India's Notification, No. 404, dated 19th May 1898.

XII.—If the Secretary to Government, Commissioner of a Division, or the highest Political Officer accredited to the State, as the case may be, finds reason to doubt that the candidate was born on the day asserted by him, or that he is the son or grandson of a person born in Her Majesty's Dominions, the certificate will be refused, and the candidate will be unable to obtain admission to the competitive examination for the Indian Civil Service.

(Sd.) A. P. MacDONELL,
Secretary to the Government of India."

NOTIFICATION.

The subjoined Government Resolution, Financial Department, No. 2363, of 18th May 1899, is published for the information of Educational Officers.

Poona, Office of the Director of Public Instruction, 30th May 1899.

E. GILES,
Director of Public Instruction.

Revised Rules for the Admission and Examination of Statutory Natives of India to the Enrolled List of the Financial Department of the Government of India.

No. 2363.

Financial Department.

Bombay Castle, 18th May 1899.

Resolution of the Government of India, Finance and Commerce Department, No. 1524-Gl., dated 10th April 1899:—

"Read again—

Resolution by the Government of India in the Finance and Commerce Department, No. 6023, dated the 31st December 1890.

Read—

Resolution by the Government of India in the Finance and Commerce Department, No. 2157, dated the 20th May 1891.

Despatch to the Secretary of State for India, No. [illegible] (Financial), dated the [illegible] November [illegible]

Despatch from the Secretary of State for India

RESOLUTION.—In partial supersession of the orders contained in the Resolution of 20th May 1891, read above, the Government of India have, with the sanction of the Secretary of State, decided that of the vacancies in the Enrolled List of the Account Department, which under the terms of the above Resolution are filled otherwise than by the appointment of members of the Indian Civil Service or of Chief Superintendents and others already in the Service of the Government, two-thirds will be filled by the Secretary of State in London and one-third by competitive examination of nominated candidates in India. The recruitment in India will be restricted to Natives of India within the meaning of the Statute 33 Vict., Chapter 3, Section 6. The definition in the Statute is—

> 'The words "Native of India" shall include any person born and domiciled within the dominions of Her Majesty in India of parents habitually resident in India and not established there for temporary purposes only.'

2. The following revised rules are now prescribed for the recruitment of candidates in India :—

I.—A register of candidates will be kept, from which not less than three candidates for each vacancy will be nominated from time to time as vacancies are expected. Only candidates so nominated will be entitled to compete.

II.—Applications by persons desirous of having their names entered in the above register should be made by them in their own hand-writing to the Secretary to the Government of India in the Finance and Commerce Department, and should be accompanied by proof that the applicant is a native of India within the meaning of the Statute above quoted, by certificates of character and of educational qualifications, by a statement of age, and by information regarding any services that may have been rendered to the State by his parents and family.

NOTE.—Copies of all certificates should be sent for record, along with the originals which will be returned.

The names of persons not possessed of high educational qualifications will not be registered. Clear and distinct hand-writing and business familiarity with the English language are in any case indispensable.

III.—The Government of India reserves absolute discretion, not only in regard to the selection of persons to be entered on the register of candidates, but also as to the nomination of candidates to compete at the examination. It must be clearly understood that registration of a candidate's name does not in any way imply that he will be nominated for admission to examination.

The name of a registered candidate will be struck off the register when he has reached the age of 25, or has failed in two examinations.

A candidate nominated for admission to one examination will not be admitted to a later examination unless again nominated.

IV.—The age of a candidate when examined must not exceed twenty-five years. A nominated candidate before appearing at the examination must produce a certificate in the annexed form by a Commissioned Medical Officer or by a Medical Officer in charge of a Civil Station.

Certificate.

I do hereby certify that I have examined A. B., a candidate for employment in the Financial Department of the Government of India, and that I cannot discover that he has any disease, constitutional affection, or bodily infirmity unfitting him, or likely to unfit him, for the public service in any part of India.

He must also before appearing produce a certificate of age from the Officer in charge of the District in which his family reside, or, if they reside in a Presidency Town or a Native State, from the Presidency Magistrate or Political Agent respectively. To obtain this certificate, the date and place of the candidate's birth must be proved before the District Officer, Presidency Magistrate or Political Agent, as the case may be, by documentary evidence, supplemented, where this is not conclusive proof, by statements of relatives and others on oath or solemn affirmation.

V.—The nominated candidates will be examined in the subjects described in the Schedule [illegible] to these Regulations. No candidate will [illegible] [illegible] knowledge of [illegible] [illegible] any appointment when no candidate reaches a high standard of proficiency.

VI.—The examination will be mainly by written questions and answers. There will be a *vivâ-voce* test in the last two groups of the compulsory subjects mentioned in the Schedule attached to this Resolution. The questions will be prepared, and the examination conducted, in such manner as the Governor-General in Council from time to time directs.

VII.—The examination will be held at such place as the Governor-General in Council from time to time directs.

ORDER.—Ordered that this Resolution be communicated to the Departments of the Government of India, to the several Local Governments and Administrations, with the request that it may be communicated to all heads of colleges and schools in their respective Provinces, to the Comptroller and Auditor-General, and to all Accountants-General and Comptrollers, for information.

Ordered also that this Resolution be published in the *Gazette of India*."

SCHEDULE.

SUBJECTS FOR EXAMINATION.

Compulsory Subjects.

	Marks.
Writing and Composition. Impromptu Essay upon some given subject ...	300
Political Economy and Logic	300
English History and Literature and Indian History	200

In the last two subjects the standard required will be that of the B. A. Honour Course of the Calcutta University.

Optional Subjects.

Mathematics as	*Group A.*—Pure Mathematics as principal subject with Mixed Mathematics as subsidiary subject.
	Group B.—Mixed Mathematics as principal subject with Pure Mathematics as subsidiary subject.

Physical Science ...	*Group C.*—Chemistry. *Group D.*—Heat, Electricity and Magnetism as principal subjects with Light and Sound as subsidiary subjects. *Group E.*—Light and Sound as principal subjects with Heat, Electricity and Magnetism as subsidiary subjects.

Each group will carry 500 marks.

In each group the standard required will be that of the M. A. Course of the Calcutta University, as defined in the Calendar for the year in which the examination is to be held.

There will be a practical examination in each of the groups C, D and E.

No candidate will be allowed to take up more than one group.

RESOLUTION.—Copy of the Resolution of the Government of India should be forwarded to the Director of Public Instruction for information and for communication to all heads of Colleges and Schools in this Presidency.

2. Copies of the Resolution should also be forwarded to the several Departments of the Secretariat, except the Legislative and Separate Departments, for information, with reference to Government Resolution No. 2050, dated 9th June 1891.

H. S. LAWRENCE,
Under Secretary to Government.

List of appointments in the Educational Department from the 16th April to the 15th of May 1899.

28th April 1899.—Mr. Rupchand M. Makhijani, 14th Assistant Master, N. J. High School, Karachi, is appointed 9th Assistant, Shikarpur High School.

Mr. Nihalchand M. Mansukhani, 9th Assistant, Shikarpur High School, is appointed 14th Assistant, N. J. High School, Karachi.

2nd May 1899.—Mr. B. M. Borkar, 4th Assistant Master, 1st Grade, Anglo-Vernacular School, Kumta, is appointed 2nd Clerk, Deputy Inspector, Kanara, on probation.

Author.	Title of Work.	Publisher.	Price.
	Class 30 :—Geography and Gazetteers.		£ s. d.
	Alternative Geography Manuals for Std. IV.	W. & R. Chambers.	0 0 2
	Do. Do. V.	Do.	0 0 3
	Do. Do. VI.	Do.	0 0 4
	Do. Do. VII.	Do.	0 0 4
	Alternative Geography Readers for Std. IV.	Do.	0 1 4
	Do. Do. V.	Do.	0 1 6
	Do. Do. VI.	Do.	0 1 6
	Do. Do. VII.	Do.	0 1 6
	Class 33 :—German.		
T. Fontane ...	Vor Dem Sturm ...	Mackmillan & Co.	
	Class 38 :—History and Biography.		
	Alternative History Manuals for Std. IV.	W. & R. Chambers.	0 0 3
	Do. Do. V.	Do.	0 0 3
	Do. Do. VI.	Do.	0 [illegible]
	Do. Do. VII.	Do.	0 [illegible]
	Alternative History Readers for Std. IV.	Do.	0 [illegible]
	Do. Do. V.	Do.	0 1 [illegible]
	Do. Do. VI.	Do.	0 1 6
	Do. Do. VII.	Do.	0 1 9
	Royal Windsor History Readers, Book VI (2 copies).	P. Nelson & Sons.	0 1 8
			Rs. a. p.
	Class 41 :—Latin.		
	A First Latin course ...	W. D'Silva.	0 6 0
	Class 46 :—Mathematics.		
A. W. Lushington.	Practical Mathematics for Forest Officers.	S. P. C. K. Press.	

6th May 1899.—Mr. D. H. Vachha, M.A., is appointed 2nd Assistant, Surat High School, and *sub pro tem.* 1st Assistant, Ahmedabad High School, until further orders.

Poona, Office of the Director of Public Instruction, 18th May 1899.

E. GILES,
Director of Public Instruction.

GOVERNMENT EDUCATIONAL LIBRARY AND MUSEUM, BOMBAY.

(NEXT TO THE SMALL CAUSES COURT.)

1. The following new books and fresh editions are now available in the Library.

2. The Library and Museum are open to the public every Saturday from 7 to 11 A. M. (Bombay time), and on other days by arrangement with the Curator.

3. See notice in *Record* for February 1887, page 44.

B. R. SAHASRABUDDHE,
Acg. Educational Inspector, C. D.

Poona, 9th May 1899.

Author.	Title of Work.	Publisher.	Price.		
	Class 25 :—English Language, &c.		£	s.	d.
A. D. Innes, M. A.	Macaulay—John Bunyan ...	Cambridge University Press.	0	1	0
D. C. Tovey, M. A.	Gray—Ode on the Spring and the Bard.	Do.	0	0	8
A. W. Verity, M. A.	Milton—Comus and Lycidas.	Do.	0	2	0
J. H. Flather, M. A.	Macaulay—The Lays of Ancient Rome.	Do.			
A. W. Verity, M. A.	Shakespeare—King Richard II.	Do.	0	1	6
	Class 26 :—English Readers, &c.				
	Stories for Infant Classes ...	W. & R. Chambers.	0	0	6
E. Snowdon ...	Stories for Standard I ...	Do.	0	0	8
	Stories for Standard II ...	Do.	0	0	9
	Class 19 :—French.		Rs.	a.	p.
	First French Course ...	W. D'Silva.	0	5	0

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D. C. Tovey, M. A.	Gray—Ode on the Spring and the Bard.	Do.	0	6	8
A. W. Verity, M. A.	Milton—Comus and Lycidas.	Do.	0	2	0
J. H. Flather, M. A.	Macaulay—The Lays of Ancient Rome.	Do.			
A. W. Verity, M. A.	Shakespeare—King Richard II.	Do.	0	1	6
	Class 26 :—English Readers, &c.				
	Stories for Infant Classes ...	W. & R. Chambers.	0	0	6
E. Snowdon ...	Stories for Standard I ...	Do.	0	0	8
	Stories for Standard II ...	Do.	0	0	9
			Rs.	a.	p.
	Class 29 :—French.				
	First French Course ...	W. D'Silva.	0	6	0

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